

**City of Tacoma Comments**

**August 2005**

**Preliminary Draft**

Phase I Municipal Stormwater NPDES and  
State Waste Discharge General Permit

May16, 2005

No. \_\_\_\_\_

Permit

Coverage  
Date \_\_\_\_\_

Issuance Date:  
Effective Date:  
Expiration Date:

**National Pollutant Discharge Elimination System and  
State Waste Discharge General Permit for Discharges  
from Large and Medium Municipal Separate Storm Sewer  
Systems**

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
OLYMPIA, WASHINGTON 98504-7600

In compliance with the provisions of  
The State of Washington Water Pollution Control Law  
Chapter 90.48 Revised Code of Washington  
and  
The Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.

Until this permit expires, is modified, or revoked, Permittees that have properly obtained coverage under this permit are authorized to discharge to waters of the state in accordance with the special and general conditions which follow.

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Dave Peeler  
Water Quality Program Manager  
Department of Ecology

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<sup>1</sup> Terms that are included in the definitions and acronyms section are indicated in italics the first time they are used in the text of the permit.

## CONVENTIONS USED FOR COMMENTS AND EDITS

- All comments are bracketed and shown in bold, underlined font.
- All suggested edits are shown in red strikeout and blue font underline-format.

### [General comments on the permit document:

- Provide an expanded table of contents, especially Section S7 Stormwater Program
- Provide page numbers on the table of contents
- Provide a running footer at the bottom of the page with section numbers
- The permit is extraordinarily long and complicated, so continuing to list the section number and subsection letter would help
- There are way too many activities required in the first part of the permit. It will not be realistic to complete all of them in the required time frames]

## SPECIAL CONDITIONS

### **S1. PERMIT COVERAGE AND PERMITTEES.**

#### A. Permit Coverage Area

This permit covers *discharges* from *Large and Medium Municipal Separate Storm Sewer Systems (MS4s)* as established at Title 40 CFR 122.26, except for *municipal separate storm sewers (MS3s)* owned or operated by the Washington State Department of Transportation.

#### B. The following entities had coverage under a previous municipal *stormwater* permit and reapplied for coverage. Their coverage date under this permit begins on the effective date of this permit. These entities are covered under this permit as Permittees:

The City of Seattle

The City of Tacoma

King County

Snohomish County

Pierce County

Clark County

#### C. King County had coverage under a previous municipal stormwater permit, as a Co-Permittee with the City of Seattle, and reapplied for coverage. Their coverage date under this permit begins on the effective date of this permit. King County is covered as a Co-Permittee with the City of Seattle for discharges it owns or operates in the City of Seattle.

- 1 D. ~~Upon application and coverage in accordance with Special Condition S1.F, the~~  
2 ~~following entities are covered under this permit as Secondary Permittees:~~
- 3 ~~1. Port of Seattle, excluding Seattle-Tacoma International Airport~~
  - 4 ~~2. Port of Tacoma~~
  - 5 ~~3. Drainage, diking, flood control, or diking and drainage districts located in the Cities~~  
6 ~~or unincorporated portions of the Counties listed in S2.A., above, which own or~~  
7 ~~operate municipal separate storm sewers serving non-agricultural land uses.~~
  - 8 ~~4. Other owners or operators of municipal separate storm sewers located in the Cities~~  
9 ~~or unincorporated portions of the Counties listed in S2.A., above.~~

10  
11 **[Eliminate the section on secondary permittees. The Ports of Tacoma and**  
12 **Seattle should have their own permit with requirements equivalent to the**  
13 **Phase I permit requirements.]**

14  
15 **DE.** Unless otherwise noted, the term "Permittee" shall include Permittee, Co-Permittee,  
16 and ~~Secondary Permittee~~, as defined above.

17 **F. Coverage for Secondary Permittees**

18 ~~1. In order to obtain coverage under this permit, each secondary Permittee identified~~  
19 ~~under Special Condition S1.D shall submit a *Notice of Intent* (NOI) and provide~~  
20 ~~public notice of the application for coverage in accordance with WAC 173-226-130.~~  
21 ~~The NOI shall constitute the application for coverage. Ecology will notify applicants~~  
22 ~~in writing of their status concerning coverage under this permit within 90 days of~~  
23 ~~Ecology's receipt of the NOI and demonstration that the public notice requirements~~  
24 ~~have been met.~~

25 ~~2. NOIs shall be submitted to:~~

26 ~~Department of Ecology~~  
27 ~~Water Quality Program~~  
28 ~~Municipal Stormwater Permit Program~~  
29 ~~P.O. Box 47600~~  
30 ~~Olympia, WA 98504-7600~~

31 **S2. AUTHORIZED DISCHARGES.**

32 A. This permit authorizes the discharge of stormwater to surface waters and to ground  
33 *waters of the state* from municipal separate storm sewers owned or operated by each  
34 Permittee, Co-Permittee, and ~~Secondary Permittee~~ identified in Special Condition S1  
35 as follows:

36 1. ~~Existing stormwater discharges.~~

37 2. ~~New stormwater discharges constructed after the issuance date of this permit that~~  
38 ~~have received all applicable state and local permits and use authorizations,~~  
39 ~~including compliance with Ch. 43.21C RCW (the State Environmental Policy Act),~~  
40 ~~and that are in compliance with Special Condition S5. COMPLIANCE WITH~~  
41 ~~STANDARDS, of this permit. **[Delete this language. The Clean Water Act**~~  
42 ~~**provides one standard for the regulation of municipal stormwater**~~  
43 ~~**discharges: control to the maximum extent possible (MEP). The current**~~  
44 ~~**language is not consistent with the Clean Water Act.]**~~

45 3. Stormwater discharges to ground waters of the state are covered under this permit,  
46 except that stormwater discharges to ground waters of the state that are designed

1 to discharge through facilities regulated under the Underground Injection Control  
2 (UIC) program, Chapter 173-218 WAC, are not covered under this permit.

3 4. Stormwater discharges to ground waters not in hydraulic continuity with surface  
4 water are covered in this permit only under state authorities, Chapter 90.48 RCW,  
5 the Water Pollution Control Act.

6 B. This permit authorizes discharges of stormwater associated with industrial and  
7 construction activity, process wastewater, and non-stormwater discharges from  
8 municipal separate storm sewers owned or operated by the Permittee, to waters of the  
9 state, only under the following conditions:

10 1. Non-stormwater discharges and process wastewater must be authorized by  
11 another *National Pollutant Discharge Elimination (NPDES)* permit or identified by  
12 and in compliance with Special Condition S7.C.8 Illicit Connections and Illicit  
13 Discharges Detection and Elimination; or

14 2. *Stormwater associated with industrial activity*, as defined by 40CFR122.26(b)(14),  
15 must be authorized by a separate individual or general NPDES permit, such as the  
16 Industrial Stormwater General Permit, Construction Stormwater General Permit, or  
17 another General Permit or individual permit issued by the Department.

18 C. ~~This permit authorizes discharges from fire fighting activities, except training exercises,~~  
19 ~~unless the discharges from fire fighting activities are identified as significant sources of~~  
20 ~~pollutants to waters of the State. [Delete this verbiage. Fire fighting activities are~~  
21 ~~done on an emergency basis to protect life and property. The protection of~~  
22 ~~water quality is of secondary concern during a fire.]~~

23 D. This permit does not authorize illicit discharges except as allowed in Special Condition  
24 S7.C.8. *Illicit Connections and Illicit Discharges Detection and Elimination*, nor does it  
25 relieve ~~entities-responsible parties responsible~~ for illicit discharges, including spills of  
26 oil or hazardous substances, from responsibilities and liabilities under state and federal  
27 laws and regulations pertaining to those discharges.

28 [Section D in the 1995 permit stated that the permit did not authorize discharges  
29 to waters on trust lands of the Puyallup Tribe. This language is now missing.  
30 Does this imply that any discharges we make into the Puyallup River in sections  
31 controlled by the Tribe are authorized by this permit? Why was this section  
32 taken out? Are other tribes now delegated as well, and do they need to be  
33 included in the permit? The language in the 1995 permit is adequate for this  
34 distinction.]

### 36 S3. RESPONSIBILITIES OF PERMITTEES, CO-PERMITTEES, AND SECONDARY 37 PERMITTEES

38 [Delete secondary permittees.]

39 A. Each Permittee, Co-Permittee and Secondary Permittee is responsible for compliance  
40 with the terms of this permit for the municipal separate storm sewers it owns or  
41 operates.

1 1. Each Permittee is required to comply with all conditions of this permit, except for  
2 S8., *Stormwater management program for Co-Permittees and Secondary*  
3 *Permittees.*

4 2. Each Co-Permittee and Secondary Permittee is required to comply with all  
5 conditions of this permit, except for Special Condition S7., *Stormwater*  
6 *management program for Permittees.*

7 B. Permittees, Co-Permittees and Secondary Permittees may rely on another entity to  
8 meet one or more of the requirements of this permit, if the other entity, in fact,  
9 implements the control measure, and agrees to implement the control measure on the  
10 Permittee's behalf. Permittees that are relying on another entity to satisfy one or more  
11 or their permit obligations remain responsible for permit compliance if the other entity  
12 fails to implement the permit conditions. Where permit responsibilities are shared they  
13 must be documented as follows:

14 1. Permittees and Co-Permittees that are continuing coverage under this permit must  
15 submit a statement that describes the permit requirements that will be implemented  
16 by other entities. The statement must be signed by all participating entities. There  
17 is no deadline for submitting such a statement, provided that this does not alter  
18 implementation deadlines.

19 2. Secondary Permittees must submit an NOI that describes which requirements they  
20 will implement and identify the entities that will implement the other permit  
21 requirements in the area served by the secondary Permittee's MS4. A statement  
22 confirming the shared responsibilities, signed all participating entities, must  
23 accompany the NOI. Secondary Permittees may amend their NOI, during the term  
24 of the permit, to establish, terminate, or amend shared responsibility arrangements,  
25 provided this does not alter implementation deadlines.

26 C. Unless otherwise noted, all appendices to this permit are incorporated by this  
27 reference as if set forth fully within this permit.

#### 28 **S4. TOTAL MAXIMUM DAILY LOAD ALLOCATIONS**

29 A. The following requirements apply if an applicable Total Maximum Daily Load (TMDL) is  
30 approved for stormwater discharges from MS4s owned or operated by the Permittee.  
31 Applicable TMDLs or applicable TMDL requirements are TMDLs ~~that which~~ have been  
32 approved by EPA and for which an approved Detailed Implementation Plan (DIP) has  
33 been adopted by Ecology on or before the issuance date of this permit, ~~or which have~~  
34 ~~been approved by EPA or~~ prior to the date that the Permittees application is received  
35 by Ecology, which ever is later. All Permittees must be in compliance with applicable  
36 TMDL requirements.

37  
38 B. For TMDLs not listed in Appendix 6 of this permit, which is by this reference as if set  
39 forth fully herein, compliance with this permit shall constitute compliance with all  
40 applicable TMDLs. Permittees shall track actions required by this Permit that are  
41 relevant to applicable TMDLs within their jurisdiction. Each Permittee shall monitor  
42 implementation of actions required to achieve compliance with the TMDL. The status  
43 of TMDL implementation must be included as part of the annual reporting  
44 requirements submitted to Ecology. Documentation of all relevant actions  
45 implemented that affect MS4 discharges to the waterbody segment that is the subject  
46 of the TMDL must be included in the annual report



C. For TMDLs and Permittees listed in Appendix 6, listed Permittees shall comply with the TMDL requirements identified in Appendix 6.

1. If water quality monitoring is a specific requirement of a TMDL listed in Appendix 6, the Permittee must develop and implement a TMDL monitoring Quality Assurance Project Plan (QAPP). The Permittee shall submit the TMDL QAPP no later than 90 days after the effective date of this permit, unless otherwise specified in Appendix 6. The monitoring plan shall be submitted to the Department in both paper and electronic form and shall include:

- a. A detailed discussion and description of the goal and objective(s), monitoring (experimental) design, and sampling and analytical methods.
- b. A list and maps of the selected TMDL monitoring sites.
- c. The frequency of data collection to occur at each station or site and the number and types of precipitation events to be targeted for sampling.
- d. The method and location(s) of precipitation measuring devices.
- e. The triggers for automated flow monitoring devices.
- f. The parameters to be measured, as appropriate for and relevant to the TMDL.
- g. The QAPP will be implemented beginning no later than 90 days after receiving review approval from Ecology. ~~180 days after the effective date of this permit.~~

2. For TMDLs listed in Appendix 6, affected Permittees shall include, as part of the Permittee's annual report to the Department, a TMDL Summary Implementation Report. The report shall include the status and actions taken by the Permittee to implement the TMDL. The TMDL Summary Report shall document relevant actions taken by the Permittee that affect MS4 discharges to the waterbody segment that is the subject of the TMDL. The report must also identify the status of any applicable TMDL implementation schedule milestones.

D. For TMDLs that are approved by EPA after this permit is issued, the Department may establish TMDL related permit requirements through future permit modification, administrative orders, or when this permit is reissued. Permittees are encouraged to participate in development of TMDLs within their jurisdiction and to begin implementation. The Department may modify this permit to incorporate requirements from TMDLs completed after the issuance of this permit if the Department determines implementation of actions, monitoring or reporting necessary to demonstrate reasonable further progress toward achieving TMDL waste load allocations, and other targets, are not occurring and must be implemented during the term of this permit.

## **S5. COMPLIANCE WITH STANDARDS**

~~A. S5.A~~ This permit does not authorize a violation of Washington State surface water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC), sediment management standards (chapter 173-204 WAC), or human health-based criteria in the national Toxics Rule (Federal Register, Vol. 57, NO. 246, Dec. 22, 1992, pages 60848-60923).

[As you are aware, none of the Phase I permittees are comfortable with this language that splits out new stormwater discharges. It takes us away from a system-wide, Maximum Extent Practicable (MEP) technical approach, and steers us toward the end-of-pipe Water Quality Standards (WQS) based approach. This doesn't work for the City of Tacoma as it sets us up for failure and lawsuits.

We suggest using one of the following two alternative ways of changing the language as originally proposed by King County:

- a. Municipalities regulated under this permit shall protect water quality by using controls that reduce the discharge of pollutants from their municipal storm sewer systems to the Maximum Extent Practicable (MEP).S5.B Existing Stormwater Discharges. In order to meet the goals of the Clean Water Act and make progress towards compliance with applicable surface water, ground water and sediment management standards for all existing stormwater discharges, each Permittee is required to use controls to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). Compliance with the terms of this permit will satisfy this requirement, or
- b. In order to meet the goals of the Clean Water Act and address compliance with applicable surface water, ground water and sediment management standards, municipalities regulated under this permit must use controls that reduce the discharge of pollutants from their MS4 to the Maximum Extent Practicable (MEP). Compliance with the terms of this permit will satisfy this requirement.]

B. [Delete this section since it is already covered in General Condition G14.] Existing Stormwater Discharges. In order to meet the goals of the Clean Water Act and make progress towards compliance with applicable surface water, ground water and sediment management standards for all existing stormwater discharges, each Permittee is required to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP).

To meet the requirement to reduce the discharge of pollutants to the MEP, each Permittee shall comply with the requirements of this permit.

C. New Stormwater Discharges. All new stormwater discharges must comply with all applicable surface water, ground water and sediment management standards. New stormwater discharges, authorized or allowed by the Permittee, shall not cause or contribute to a violation of applicable standards. New stormwater discharges include new stormwater sources and new stormwater outfalls, including all sources contributing to the new stormwater outfall. Compliance with water quality standards shall be determined as follows:

1. If the new stormwater discharge is controlled in accordance with the technical standards in Appendix 1 (which is by this reference as if set forth fully herein) and in compliance with the terms of this permit, then the discharge is in compliance unless site-specific information as in 2, below, indicates otherwise. From the effective date of this permit until the date the Permittee adopts the technical

standards in this permit, including, at a minimum Appendix 1, the *Best management Practices (BMP)* selection and site planning process, types of BMPs and design criteria for BMPs required under S7.C.5 of this permit, each Permittee must provide information to proponents of projects that will result in new stormwater discharges as follows:

a. That new stormwater discharges are not allowed to cause or contribute to a violation of applicable surface water, ground water and sediment management standards, including the State's narrative criteria for water quality; and

b. That project proponents may apply the technical standards referenced in paragraph S5.C.1, above, as a means of achieving compliance; and

c. If project proponents choose not to apply the technical standards referenced in paragraph S5.C.1, above, then they must be prepared to demonstrate that the new stormwater discharge does not cause or contribute a violation of applicable surface water, ground water and sediment management standards. Project proponents must be prepared to document how stormwater BMPs were selected, the pollutant removal expected from the selected BMPs, the technical basis which support the performance claims for the selected BMPs, and an assessment of how the selected BMPs will comply with applicable State water quality standards and satisfy the state requirement under Chapter 90.48 RCW to apply all known, available, reasonable methods of prevention, control and treatment (AKART) prior to discharge.

2. If, prior to authorization of a new stormwater discharge, site-specific information indicates that the technical standards in this permit, including, at a minimum Appendix 1, the BMP selection and site planning process, types of BMPs and design criteria for BMPs required under S7.C.5 of this permit are not sufficient to protect beneficial uses of waters of the state from impacts which cause or contribute to loss or impairment, then additional controls necessary to protect beneficial uses must be applied. The additional controls determined necessary to protect beneficial uses must be in place prior to the discharge from the new stormwater source or outfall.

D. Ecology may modify or revoke and reissue this *general permit* in accordance with General Condition G14., if Ecology becomes aware of additional control measures, management practices or other actions beyond what is required in this permit, that are necessary to reduce the discharge of pollutants to the MEP or to protect water quality. Delete this section since it is already covered in General Condition G14.

## S6. MONITORING

Ecology has acknowledged in permittee advisory meetings that this section needs further significant work. Ecology has committed to work with Phase I and II permittee advisory groups to further refine the language before the next permit draft. Tacoma has provided comments to this section for discussion.

The Permit needs a process to evaluate the effectiveness of the Stormwater Management Program and a process for adaptive management and refinements of the Program. S6 ask for an adaptive management process and refinements of the Stormwater Management Program. S6.A.1 says: ... the effectiveness of the municipal stormwater permitting and program efforts in protecting and restoring water quality and beneficial uses:

S6.A.1.a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?

S6.A.1.b. Are the Permittees preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?

No where in the permit conditions is there a process for adaptive management, refinements or evaluating the effectiveness of the Stormwater Management Program. S7. is strictly a list of program components and S9. reporting requirements just ask for status, compliance with elements, and dollars spent. The reporting requirements should allow a Permittee to adapt program elements beyond the components listed in S7.

S6.A.1.a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff? This question may or may not be answered through long-term outfall monitoring alone (i.e., quantitative measures). Qualitative measures also need to be incorporated (i.e., such as inspections, illicit connection removal, complaint/spill response, public education, redevelopment, maintenance, and other municipal programs).

The permit requirements should focus on the effectiveness and operational application of the Stormwater Management Program. The monitoring should focus on the MS4 system and not the receiving waters or sources outside the MS4 system.

S6. A.1.b. Monitoring Section seems to imply that stormwater runoff is sole source that affects receiving water quality. For the most part, there is not a clear understanding on the cause and effect relationship between cumulative discharges [municipal stormwater, direct discharges (private stormwater, adjacent land owners, vessels, and wildlife), groundwater, atmospheric, etc] and receiving waters. There also needs to be recognition of upstream, boundary, baseline or natural conditions that are water quality impaired and are beyond the control of the Permittee.

When monitoring receiving waters, all contributors need to be recognized. The effectiveness and cost of a stormwater management program should be evaluated in the context of all other contributors to the receiving waters to determine where additional controls can be most effectively implemented, if additional controls are required.

1 Efforts in protecting and restoring water quality and beneficial uses should be assessed  
2 on both the WRIA-scale and local-scale. Local programs look at their efforts in  
3 protecting and restoring water quality and beneficial uses within their jurisdiction. It is  
4 important to understand the beneficial uses and water quality on the WRIA-scale as well  
5 on the local scale and what are the cumulative effects of local scale programs on the  
6 WRIA-scale.

7  
8 Baseline QAPPs. If Ecology establishes baseline QAPP(s) for stormwater, receiving  
9 water, and BMP effectiveness. In this way, permittees will be using the same field and  
10 analytical methods and report format and content. Permittees will produce equivalent  
11 data and similar report formats that can be easier to assess, review and share  
12 information throughout a WRIA. The resulting data can be used by Ecology to assess  
13 cumulative efforts in protecting and restoring water quality and beneficial uses on a  
14 WRIA-scale level.

15  
16 S6.A.1.b. Are the Permittees preventing impacts and seeing improvements to beneficial  
17 uses by implementing a comprehensive stormwater management program? The answer  
18 to this question may be easier to answer if the numbers of contributors are small and the  
19 receiving water is small such as a creek or isolated wetland. However, as the size of the  
20 receiving water increases so does the number of contributors and the above question is  
21 too broad for one municipality to answer.

22  
23 For example, two-thirds of Tacoma's watersheds discharge to the Puget Sound (i.e.,  
24 Commencement Bay and a number of Waterways and the Narrows. Sources of water,  
25 chemicals, and solids to the Puget Sound include but are not limited to: municipal  
26 stormwater, NPDES industrial and wastewater discharges, marinas and vessels,  
27 background turbidity and suspended sediments, and atmospheric deposition. Puget  
28 Sound water quality represents a mix of all these sources.

29  
30 If Tacoma samples a single point in the Puget Sound, the water quality of this single  
31 point represents the mixing of all nearby sources and the background that is already  
32 present in Puget Sound waters. S6.A.1.b for Commencement Bay can not be answered  
33 by a monitoring program conducted by Tacoma alone. There should be an  
34 understanding of the short-term and long-term water quality throughout Puget Sound  
35 and Commencement Bay and recognition of all the sources and their contribution.

36  
37 Ecology should be the lead on receiving water monitoring/coordination for complex  
38 systems such as the Puget Sound. A clear plan should be laid out with objectives and  
39 goals such that all parties are clear on the data needs, quality, and how the data will be  
40 used to support the objectives and goals.]

Ecology is requesting comments on the objectives of the proposed monitoring program.

We are interested in assessing the effect of implementing the stormwater management programs required under this permit. This includes looking at receiving waters, stormwater quality and BMP effectiveness. The information gained will be used to provide feedback for local stormwater management programs and Ecology's permitting program.

Should Ecology require integrated, collaborative, WRIA-scale monitoring programs? WRIA-scale monitoring programs could eventually integrate monitoring among all municipal stormwater permittees, Phase I, Phase II and WSDOT. Or are independent monitoring programs adequate to development the information basis for providing feedback on stormwater management programs?

**[The monitoring programs questions S6.A.1.a and b are too general to be answered solely with the use of monitoring data. The answer to these questions can be answered with both qualitative and quantitative measures. Questions S6.A.1.a and b should be moved to evaluation of the Stormwater Management Program and not included here.]**

The Permittees, Port of Seattle and Port of Tacoma shall develop and implement a comprehensive long-term monitoring program. The monitoring program shall include two elements: stormwater and receiving water monitoring, and BMP effectiveness monitoring. The monitoring program must include long-term monitoring and may include short term studies. The results of the monitoring program shall be used to support the adaptive management process and lead to refinements of the Stormwater Management Program.

**[Move last 2 sentences to S6.A.4 (see insert A here)]**

~~The monitoring program must include Quality Assurance Project Plans (QAPPs) for each monitoring objective, written in accordance with Ecology's QAPP guidelines at <http://www.ecy.wa.gov/biblio/0403030.html>. The monitoring program must be developed by qualified staff or contractors that have experience in applying Ecology's or EPA's QAPP Guidelines.~~

#### S6.A. Stormwater and Receiving Water Monitoring

S6.A.1. The Permittees, Port of Seattle and Port of Tacoma shall develop and implement comprehensive, long-term water quality monitoring program during the term of this permit. The monitoring program shall be designed to contribute to answering the following questions about evaluating the effectiveness of the municipal stormwater permitting and program efforts in protecting and restoring water quality and beneficial uses.

**[Move S.6.A.1.a and b questions to S.7.A]**

~~a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?~~

~~b. Are the Permittees preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?~~

S6.A.2. Monitoring Program Coordination and Planning

The Permittees and ports may choose to develop the monitoring program, conduct the monitoring, and report results through an integrated, long-term, water quality monitoring program in collaboration with the other Phase I and Phase II MS4 permittees in the Water Resource Inventory Area(s) (WRIA) in which their MS4 is located; or they may independently develop a monitoring program, conduct the monitoring, and report results, in accordance with the requirements, below.

If a Permittee chooses to participate in the development of an integrated water quality monitoring program in collaboration with the other Permittees in the WRIA in which their MS4 is located, the collaborative effort shall be conducted as follows:

S6.A.2.a. Permittees that choose to participate in the development of an integrated water quality monitoring program shall form a committee for this purpose. The participating Permittees shall submit a written agreement, signed by all participants, that includes the monitoring program development schedule and responsibilities.

S6.A.2.b. The development and implementation of the integrated monitoring program shall be supported by the combined resources of all the participating Permittees.

S6.A.2.c. One permittee shall be identified as the lead permittee for purposes of reporting. The lead permittee shall be responsible for the overall monitoring program management and shall prepare and submit to the Department unified monitoring program plans and reports.

The activities of the lead permittee shall include, but not be limited to, the following:

- i. Coordinate and conduct Monitoring Committee meetings on an as needed basis.
- ii. Coordinate monitoring activities and participate in any subcommittees formed as necessary to coordinate monitoring activities.
- iii. Provide technical and administrative support and inform the other permittees of the progress of monitoring activities or studies.
- iv. Coordinate all the activities with the Department, including the submittal of all reports and plans developed by the committee.
- v. Obtain public input for any proposed monitoring plans, where applicable.
- vi. Cooperate in the WRIA-based monitoring program.

S6.A.2.d. The non-lead permittees on the committee shall be responsible for implementing monitoring programs and coordinating among their internal departments and agencies, as appropriate, to facilitate the implementation of the monitoring program.

The activities of the non-lead permittees shall include, but not be limited to, the following:



i. ~~i.~~ Participate in a Monitoring Committee comprised of the lead permittee and one representative of each of the other permittees. The lead permittee will take the lead role in initiating and developing the WRIA-wide monitoring activities necessary to comply with S6.A above. The committee shall meet on a regular basis as appropriate for the specific monitoring program. ~~(at least six times per year).~~ Each permittee shall designate one official representative to the Monitoring Committee.

[The number of meetings should be based on the size of the monitoring program and the number of people involved. In addition, the frequency of meeting can be reduced as the program evolves. There should be some freedom for the permittees to set the appropriate number of meetings for the size and type of monitoring project.]

- ii. Review, approve, and comment on all plans, strategies, and monitoring programs, as developed by the lead permittee or any permittee subcommittee to comply with this permit.
- iii. Conduct and coordinate with the lead permittee any monitoring and characterizations needed to implement the monitoring program.
- iv. Prepare and submit all required reports to the lead permittee in a timely manner.

S6.A.3. The Permittees and ports shall support the monitoring planning efforts by providing the following resources and information:

S6.A.3.a. Counties

- i. Each County shall identify potential monitoring stations in receiving waters and in outfalls associated with those receiving waters, in small sub-basins less than ten square miles in area and representing each of the following land uses:
  - (1) Medium- to high-density urbanized,
  - (2) Areas of new development (urbanizing), and
  - (3) Low-density residential basins outside the urban growth boundary.
- ii. Each County shall provide maps and staff assistance as necessary to facilitate the evaluation and create a list of potential sites, and to determine land uses in the contributing areas.

S6.A.3.b. Cities

- i. Each City shall identify potential monitoring stations in receiving waters and in outfalls associated with those receiving waters, in small sub-basins less than ten square miles in area and representing each of the following land uses:
  - (1) High-density urbanized, and
  - (2) Medium- to high-density urbanized.



- 1                   ii. Each City shall provide maps and staff assistance as necessary to  
2                   facilitate the evaluation and create a list of potential sites, and to  
3                   determine land uses in the contributing areas.

4                   S6.A.3.c. Ports of Seattle and Tacoma

- 5                   i. Each Port shall identify potential outfalls for water quality/toxicity  
6                   monitoring stations and in-line sediment traps.  
7                   ii. Each Port shall provide maps and staff assistance as necessary to  
8                   facilitate the evaluation of potential sites and to determine land uses in  
9                   the contributing areas.

10                  ~~d.S6.A.3.d.~~ Other secondary Permittees will have no responsibilities for  
11                  monitoring under this section during this permit term, however, they are required to  
12                  provide information, maps and access for sampling efforts, as necessary. Other  
13                  secondary Permittees are encouraged to participate in the monitoring program.

14                  ~~e.S6.A.3.e.~~ The monitoring program shall include confirmed sampling locations  
15                  distributed among the geographical areas covered by the permit and among the  
16                  land uses listed in 3.a.i. and 3.b.i. above. Each sub-basin selected (except for the  
17                  in-line sediment traps at the Ports) must include a receiving water sampling site  
18                  and should include a minimum of two outfalls.

19  
20                  S6.A.4. Monitoring Program Development, Review, and Approval

21  
22                  Ecology is requesting comments on the question of reviewing and approving the  
23                  Monitoring Programs.

24                  Should the Monitoring Programs be reviewed and approved? If so, what should  
25                  be the standard for review? Who is best capable of doing the review? Should an  
26                  independent entity review the monitoring program? Or should Ecology build up  
27                  expertise and do the review?

28                  An alternative to reviewing and approving the monitoring program is to include  
29                  more detailed criteria for the monitoring program in the permit. That criteria  
30                  would need to be developed before the permit is issued.

31  
32  
33                  [Water quality data for stormwater and receiving water should be the same quality (field  
34                  collection and analytical methods) throughout the entire region. Water quality monitoring  
35                  programs should be reviewed and approved by a single entity to ensure that data is of the  
36                  same quality. Ecology should be the agency to provide the expertise and review of  
37                  monitoring programs.

The Ecology QAPP guidelines that are available are too general and open for interpretation that has led to many versions of a QAPP resulting in months to years to get Ecology approvals.

We recommend Ecology provide boiler plate QAPP(s) for stormwater, receiving water, and BMP effectiveness. In this way, permittees will be using the same field and analytical methods, QA/QC, and report format and content. Permittees will produce equivalent data and similar report formats that can be easier to assess, review and share information throughout the region. The resulting data can be compared to other data throughout a WRIA and region.

The boiler plate QAPP should include:

- Objectives for each types of sampling: stormwater, receiving water, and BMP effectiveness.
- Minimum number of samples to be collected for each type of sample/analyses (i.e., benthic sampling once/year, quarterly stormwater sampling, ten or more storms per year for BMP effectiveness).
- Data quality objectives
- Field and analytical procedures
- Number of QA/QC samples to be collected
- Report format as listed in S6.A.5. including the following:
  - electronic data format requirements
  - a comprehensive data and QA/QC report format (see S6.A.5.c)
  - data evaluation (summary, statistics, trend analysis etc.)

The scope of Section S6. is so vague that it is nearly impossible to quantify the personnel and budget impact of such a program.]

[INSERT sentences from S.6] The monitoring program must include Quality Assurance Project Plans (QAPPs) for each monitoring objective, written in accordance with Ecology's QAPP guidelines at <http://www.ecy.wa.gov/biblio/0403030.html>. The monitoring program must be developed by qualified staff or contractors that have experience in applying Ecology's or EPA's QAPP Guidelines.

[Or reference boiler plate QAPP(s) to be used .]

The monitoring program and implementation plan shall be submitted no later than 2 years after the effective date of this permit. The monitoring program shall be submitted in both paper and electronic form and shall include all the required elements of the QAPP, including:

- a. A detailed discussion and description of the purpose, design, and methods of the water quality monitoring program.
- b. A list and maps of all selected receiving water and outfall sampling sites.

1 c. The frequency and type of sampling (data collection and analytical methods) or  
2 other monitoring effort to occur at each station or site, including but not limited  
3 to:

4 i. Sampling in the receiving waters:

- 5 (1) Benthic invertebrates (RIV-PAC, fine sediment and temperature  
6 metrics),  
7 (2) Embeddedness  
8 (3) Temperature  
9 (4) pH  
10 (5) Hardness

11 [RIVPACs originated in the 1990s and is used primarily in the UK and a few places in the  
12 US. Currently, BIBI is used in this region and is the accepted and proven method. There  
13 is even historical record using BIBI that is valuable when assessing changes in future  
14 conditions. We recommend using BIBI.]

15  
16 [How would the permittees use these sampling requirements for lakes and marine waters?  
17 It appears that there are requirements solely for streams. Methods should be provided for  
18 all types of receiving waters (i.e., creeks, rivers, lakes, wetlands, estuaries, and marine  
19 waters).]

20  
21 ii. Establishing physical conditions and trends in the stream channel. The  
22 monitoring program shall develop this strategy using information from  
23 "Monitoring Urban Streams: Strategies and Protocols for Humid-Region  
24 Lowland systems" (Environmental Monitoring and Assessment, 71: 143-  
25 164, 2001.)

26 iii. Flow-weighted composite storm sampling, and base flow sampling, in  
27 outfalls for the following constituents/parameters as appropriate for the  
28 monitoring objective:

- 29 (1) Flow, Hydrograph data including antecedent dry period, rainfall and  
30 runoff, discussion of representativeness of storm samples and storm  
31 types,  
32 (2) TSS and turbidity,  
33 (3) Conductivity if tidally influenced,  
34 (4) Chloride,  
35 (5) Metals (including, at a minimum, total and dissolved copper, zinc, ,  
36 cadmium, and lead; and mercury sampling as appropriate in some  
37 high density commercial or industrial urban settings) and hardness,  
38 (6) Base/Neutral/Acids (BNAs),  
39 (7) Pesticides (commercially available and/or known to be applied  
40 roadside),

- 1 (8) Nutrients (including total nitrogen, phosphorus, nitrate/nitrite and  
2 orthophosphate),  
3 (9) Biochemical oxygen demand (BOD), and  
4 (10) Toxicity testing of a “seasonal first-flush” storm event (as defined by  
5 Ecology).

6 [Toxicity testing of the seasonal first flush storm event may be limited by the availability of  
7 laboratories that do toxicity testing (i.e., limited supply of critters for testing, synergistic  
8 effect of everyone sampling for the same storm). To reduce the overall number of toxicity  
9 tests on the same storm event, each permittee could identify 20 percent of the outfall  
10 samples to be toxicity tested in the first year and rotate the sites selected in the following  
11 years.

12 Toxicity tests require a fair amount of volume. Collecting enough volume of stormwater  
13 for analyses can be a difficult task. The list of parameters should be prioritized for  
14 situations when enough sample volume is not achieved. Does the wording as appropriate  
15 for the monitoring objective cover prioritizing parameters based on available sample  
16 volumes? ]

- 17  
18 iv. Grab samples in outfalls for the following constituents/parameters as  
19 appropriate for the monitoring objective:

- 20 (1) Total Petroleum Hydrocarbons (TPH) using NWTPH-Gx and  
21 NWTPH-Dx., and  
22 (2) E. coli and Enterococci bacteria.

23 [It is Tacoma’s experience that a majority of the stormwater events occur in the early  
24 hours of the day ( 1-5 AM). Grab samples are difficult to collect late at night and during  
25 the first part of the storm event. It may not be safe for the sampling crew or person at the  
26 sampling location late at night. Grab samples should be noted as “Make a reasonable  
27 attempt to collect grab samples”.]

- 28 v. For in-line sediment traps, percent solids, pH, metals, and BNAs as  
29 appropriate for the contributing area land use.

30 The sediment traps are a useful tool for source tracing given the following  
31 considerations:

- 32 ▪ Traps are installed at the end of the pipe in an attempt to represent  
33 the cumulative effect of sources in that particular drainage area.  
34 ▪ Traps are left in-place for an extended period of time (3 to 6  
35 months) and collect data from a variety of storms (i.e., a range of  
36 volume, duration and intensity conditions).

37 It is inappropriate, however, to evaluate sediment trap data using sediment  
38 quality criteria because storm drains provide neither habitat nor point of  
39 compliance for aquatic life.

- 1 d. The number of each type of event (e.g. baseflow; "seasonal first-flush" and/or  
2 other dry season rainfall; wet season rainfall) to be sampled at each location for  
3 each of the types of sampling identified in part C above.
- 4 e. An approved or final monitoring plan must be adopted no later than 30 months  
5 after the effective date of this permit.
- 6 f. Full implementation of the stormwater and receiving water monitoring program  
7 shall begin no later than 36 months after the effective date of this permit. The  
8 third party or parties selected to develop the monitoring plan may continue to  
9 be utilized to collect and analyze the data and to write the subsequent reports  
10 required under this permit.

11 **S6.A.5. Monitoring Program Reporting Requirements**

12 The stormwater monitoring report shall be submitted by ~~December 31~~February  
13 15th each year, beginning in 2009. Each report shall include all monitoring data  
14 collected during the preceding period from October 1 through September 30.

15 **If a permittee collects a storm sample on September 30<sup>th</sup>, the due date has to be**  
16 **changed to allow time for the permittee to get the analytical data back from the lab. It**  
17 **usually takes 30 to 45 days to get data back from the lab. Data evaluation can not be**  
18 **completed until the permittee has all the data at hand.]**

19 Each report shall also integrate data from earlier years into the analysis of results,  
20 as appropriate. Permittees that choose to participate in an integrated water quality  
21 monitoring program shall submit a single integrated monitoring report. Reports  
22 shall be submitted in both paper and electronic form and shall include:

- 23 a. A summary of the purpose, design, and methods of the monitoring program,  
24 b. The status of implementing the monitoring program,  
25 c. A comprehensive data and QA/QC report for each part of the monitoring  
26 program, with an explanation and discussion of the results of each monitoring  
27 project,  
28 d. An analysis of the results of each part of the monitoring program, including any  
29 identified water quality problems or improvements or other trends in stormwater  
30 or receiving water quality, and  
31 e. Recommended future actions based on the findings.
- 32 f. If the Permittee monitors any pollutant more frequently than required by the  
33 required monitoring program, then the results of this monitoring shall be  
34 included in the report. If the Permittee conducts any other stormwater  
35 monitoring in addition to that required in the required monitoring program, then  
36 it shall provide a description of the additional monitoring in the report.
- 37

1 [The report format and contents can be outlined in a boiler plate QAPP(s). This would aid  
2 Ecology and Permittees in understanding expectations of monitoring reports and their  
3 contents.]

1 **S6.B. Best Management Practice (BMP) Effectiveness Monitoring Program**

2  
3 There is a need for more local information about the effectiveness of treatment and flow  
4 control BMPs. Much of the data about BMP effectiveness comes from other parts of  
5 the country *and is based on a variety of different design criteria, rainfall types, and soil*  
6 *types - factors that can influence performance and make extrapolations to our situation*  
7 *questionable*. Given the need for more data that is generated locally, how should this  
8 need be met?

9 The municipal stormwater permittees are the governmental entities that permit and  
10 regulate land development, and are responsible for the quality of water discharged to  
11 waters of the state through their storm sewer systems. Therefore, it seems appropriate  
12 to have the permittees primarily responsible for determining the effectiveness of  
13 measures intended to reduce the discharge of pollutants to the Maximum Extent  
14 Practicable. Is it appropriate to include BMP effectiveness monitoring as a requirement  
15 of this permit?

16 There is a need for more local information about the effectiveness of treatment and flow  
17 control BMPs. Much of the data about BMP effectiveness comes from other parts of  
18 the country *and is based on a variety of different design criteria, rainfall types, and soil*  
19 *types - factors that can influence performance and make extrapolations to our situation*  
20 *questionable*. Given the need for more data that is generated locally, how should this  
21 need be met?

22 The municipal stormwater permittees are the governmental entities that permit and  
23 regulate land development, and are responsible for the quality of water discharged to  
24 waters of the state through their storm sewer systems. Therefore, it seems appropriate  
25 to have the permittees primarily responsible for determining the effectiveness of  
26 measures intended to reduce the discharge of pollutants to the Maximum Extent  
27 Practicable. Is it appropriate to include BMP effectiveness monitoring as a requirement  
28 of this permit?

29 **[There are 2 types of structural BMPs that are used by Tacoma. Monitoring should be**  
30 **completed for each type to ensure that these BMPs are effective treatment and flow control**  
31 **BMPs. However, the party responsible to evaluate effectiveness depends on the type of**  
32 **structural BMP.**

- 33 **▪ Vender On-site BMPs: Vendors should prove effectiveness through the Technology**  
34 **Assessment Protocol – Ecology, TAPE, program. Ecology approves the use of these**  
35 **systems based on input from the Technical Review Committee (TRC).**
- 36 **▪ Traditional On-site BMPs: Additional information on the effectiveness of the**  
37 **traditional on-site BMPs as listed in the 2005 Manual and the preliminary draft**  
38 **permit may be needed. However this requirement should not be a condition of the**

permit. A coordinated effort under Ecology would be the best use of Phase I and II resources to evaluate effectiveness of these BMPs.

An advisory committee of Phase I and II jurisdictions should be formed to identify what BMP's need further evaluation above and beyond that already done by others locally as well as nationally. A third party could conduct the monitoring or each participant could monitor one or more of the sites as a coordinated effort. QAPPs should be developed and approved by the committee to guarantee the quality of data produced.

The committee and process could be similar to the current TRC. Information from the studies would then be used by the committee to improve the design requirements in Ecology's 2005 Manual.]

The Permittees and ~~Ecology~~~~ports~~ shall develop and implement a comprehensive, long-term BMP effectiveness monitoring program as described in this section. Structural Runoff Treatment BMPs, and Flow Reduction Strategies will be evaluated. The primary purpose of the BMP effectiveness monitoring program is to provide a feedback loop for adaptive management of the Permittees' stormwater management programs and the Department of Ecology's municipal stormwater permitting program. The BMP effectiveness monitoring program shall be designed to contribute to answering the following questions about the short term and long term performance of BMPS in protecting and restoring water quality and beneficial uses:

- a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?
- b. Are the Permittees preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?

1.- Runoff Treatment BMP Effectiveness Monitoring - Program Coordination and Planning.

The Permittees and ~~ports~~~~Ecology~~ ~~may choose to~~~~will~~ develop the BMP effectiveness monitoring program, conduct the monitoring, and report results through a single long-term monitoring program that will be supported by the combined resources of all of the Permittees and ~~the ports~~~~Ecology~~; or they may independently develop a BMP effectiveness monitoring program, conduct the monitoring, and report results, in accordance with the requirements, below. If a collaborative approach is chosen, the committee process outlined in S8.A.2., above, shall be followed.

The BMP effectiveness monitoring program shall be designed to evaluate ~~all of the~~~~the~~~~runoff treatment~~ BMPs as identified by the Permittees and Ecology listed below, at no less than 2 sites per BMP, and 6 flow reduction strategies. The monitoring program must include QAPPs for each BMP and flow reduction strategy being monitored.

[Use a boiler Plate QAPP developed by Ecology or Ecology/Permittee committee. See previous comment in S6.A.]



1 QAPPs for short detention time BMPs should follow the TAPE protocols. QAPPs  
2 for long detention time BMPs will need to develop sampling protocols. –The  
3 monitoring program must be developed by qualified staff or contractors that have  
4 experience with Ecology's or EPA's Guidelines for Quality Assurance Project Plans  
5 (QAPP).  
6

7 The Permittees shall support monitoring planning efforts by providing the following  
8 resources and information:

9 a. Responsibilities of ~~Counties, Cities, and Ports of Seattle and~~  
10 ~~Tacoma~~ Permittees

- 11 i. Each Permittee shall identify potential sites where ~~the~~  
12 ~~following~~ following runoff treatment types of BMPs are in use or planned for  
13 installation (the BMPs shall have been/will be designed using criteria  
14 similar to the 2005 Western Washington Stormwater Management  
15 Manual). ~~QAPPs for short detention time BMPs should follow the TAPE~~  
16 ~~protocols. QAPPs for long detention time BMPs will need to develop~~  
17 ~~sampling protocols.~~ BMP treatment types may include:

18 (1) Basic Treatment

19 Biofiltration swale

20 Filter strip

21 Basic wetpond

22 Treatment wetland

23 Sand filter

24 (2) Metals/Phosphorus Treatment

25 Amended sand filter

26 Two facility treatment train

27 Compost amended filter strips

28 Bioretention

29 Large wetpond

30 (3) Oil Control

31 Linear sand filter

32 Catch basin insert

- 33 ii. Each Permittee shall provide a prioritized list of the types of structural  
34 treatment BMPs to monitor.

- 35 iii. Each ~~City and County~~ Permittee shall identify and describe a flow  
36 reduction strategy that is in use or planned for installation in their  
37 jurisdiction, and is suitable for monitoring.

- 38 iv. Each Permittee shall provide staff assistance as necessary to facilitate  
39 the evaluation and selection of potential sites.

- 1           b. Other special Permittees will have no responsibilities for BMP effectiveness  
2           monitoring under this section during this permit term.

3           2. BMP Effectiveness Monitoring Program Development, Review, and Approval

4 Ecology is requesting comments on the question of reviewing and approving the  
5 Monitoring Programs.

6 Should the Monitoring Programs be reviewed and approved, prior to  
7 implementation? If so, what should be the standard for review? Who is best

8 Ecology is requesting comments on the question of reviewing and approving the  
9 Monitoring Programs.

10 Should the Monitoring Programs be reviewed and approved, prior to  
11 implementation? If so, what should be the standard for review? Who is best  
12 capable of doing the review? Should an independent entity review the monitoring  
13 program? Or should Ecology build up expertise and do the review?

14 An alternative to reviewing and approving the monitoring program is to include more  
15 detailed criteria for the monitoring program in the permit. That criteria would need  
16 to be developed before the permit is issued.

17 The Permittees and ports shall submit a BMP effectiveness monitoring program  
18 plan no later than 2 years after the effective date of this permit. The monitoring  
19 plan shall be submitted in both paper and electronic form and shall include:

- 20       a. A detailed discussion and description of the purpose, design, and methods of  
21       the BMP effectiveness monitoring program, including Quality Assurance  
22       Project Plans (QAPPs) for each BMP being monitored.

23       **[Develop a boiler plate QAPP so that data generated is consistent throughout**  
24       **the region]**

- 25       b. A detailed discussion and description of the purpose, design, and methods of  
26       the flow reduction strategy monitoring program, and QAPPs for each flow  
27       reduction strategy being monitored.
- 28       c. A list and maps of all proposed and selected monitoring sites, including the  
29       date of installation/construction.
- 30       d. The Permittees' prioritized lists of structural treatment BMPs to monitor.
- 31       e. Records of inspection and maintenance on each of the BMPs selected.
- 32       f. The methods, protocols, analytical laboratory methods to be used.
- 33       g. The frequency of data collection to occur at each station or site and the number  
34       and types of precipitation events to be targeted for sampling.
- 35       h. The parameters to be measured in the inflow to and outflow from each BMP, or  
36       flow reduction strategy, as appropriate for the contributing area land use and  
37       performance expectations of the selected BMP:
- 38       i. Flow (rate, duration and volume)

- ii. Hydrograph data including antecedent dry period, rainfall and runoff, discussion of representativeness of storm samples and storm types.
- iii. TSS,
- iv. pH, hardness, and temperature,
- v. Metals (including, at a minimum, total and dissolved copper, zinc, arsenic, cadmium, chromium, and lead),
- vi. Total Petroleum Hydrocarbons ( NWTPH-Gx and NWTPH-Dx),
- vii. BNAs,
- viii. Pesticides (commercially available and/or known to be applied roadside),
- ix. Nutrients (including total nitrogen, total phosphorus, nitrate/nitrite and orthophosphate),
- x. Biochemical oxygen demand (BOD),
- xi. E. coli and Enterocci bacteria, and/or
- xii. Toxicity

[Toxicity testing of the seasonal first flush storm event may be limited by the availability of laboratories that do toxicity testing (i.e., limited supply of critters for testing, synergistic effect of everyone sampling for the same storm). To reduce the overall number of toxicity tests on the same storm event, each permittee could identify 20 percent of the outfall samples to be toxicity tested in the first year and rotate the sites selected in the following years.]

Toxicity tests require a fair amount of volume. Collecting enough volume of stormwater for analyses can be a difficult task. The list of parameters should be prioritized for situations when enough sample volume is not achieved. Does the wording as appropriate for the monitoring objective cover prioritizing parameters based on available sample volumes?]

- i. The BMP effectiveness monitoring program must also describe a framework for Phase II Permittees in western Washington to enhance BMP effectiveness monitoring during future permit cycles.
- j. An approved BMP effectiveness monitoring plan must be adopted by no later than 30 months after the effective date of this permit.
- k. Full implementation of the stormwater and receiving water monitoring program shall begin no later than 36 months after the effective date of this permit. . The third party or parties selected to develop the monitoring plan may continue to be utilized to collect and analyze the data and to write the subsequent reports required under this permit.

### 3. BMP Effectiveness Monitoring Reporting Requirements

The BMP effectiveness monitoring report shall be submitted by ~~December~~ ~~31~~ ~~34~~ February 15th each year, beginning in 2009. Each report shall include all monitoring data collected during the preceding period from October 1 through September 30. Each report shall also integrate data from earlier years into the

analysis of results, as appropriate. Permittees that choose to participate in an integrated water quality monitoring program shall submit a single integrated monitoring report. Reports shall be submitted in both paper and electronic form and shall include:

If a permittee collects a storm sample on September 30<sup>th</sup>, the due date has to be changed to allow time for the permittee to get the analytical data back from the lab. It usually takes 30 to 45 days to get data back from the lab. Data evaluation can not be completed until the permittee has all the data at hand.]

- a. A summary of the purpose, design, and methods of the monitoring program,
- b. The status of implementing the monitoring program,
- c. The status of implementing the QAPP for each part of the monitoring program, with an explanation and discussion of the results of each component,
- d. An analysis of the results of each component of the monitoring program, including any identified BMP performance problems, and
- e. Recommended future actions based on the findings.

## **S7. STORMWATER MANAGEMENT PROGRAM**

Note to Reviewers:

Ecology is specifically requesting comments on the organization of the Stormwater Management Program in the Phase I and Western Washington Phase II permits.

The current organization in the Phase II permit follows the EPA six minimum measures, while the organization for the Phase I municipal stormwater permit reflects the old permit and other factors. Should the two permits have a consistent organizational structure/outline for the stormwater management program? If so, should the structure follow the organization either the Phase I or Western Washington Phase II permit, or a different structure altogether?

- A. Each Permittee shall implement a Stormwater Management Program (SWMP) during the term of this permit. For the purpose of this permit a stormwater management program is a set of actions comprising the *components* listed in S7.B., S7.C.1 through S7.C.10., and additional actions and activities, where necessary, to meet the requirements of applicable TMDLs.

The Stormwater Management Program should include an adaptive management process which leads to refinements of the Stormwater Management Program based on an evaluation of the effectiveness of the municipal stormwater permitting and program efforts in protecting and restoring water quality and beneficial uses:

1 a. Is implementation of the Stormwater Management Program preventing impacts from  
2 the effects of new development by controlling construction and post-construction  
3 runoff?

4 b. Are the Permittees preventing impacts and seeing improvements to beneficial uses  
5 by implementing a comprehensive stormwater management program?]  
6

- 7 1. Each Permittee shall prepare written documentation of their SWMP and submit it to  
8 Ecology in written and electronic formats with the first year annual report, in  
9 accordance with the requirements in S9 REPORTING REQUIREMENTS. The  
10 documentation of the SWMP shall be organized according to the program  
11 components in S7.C., and shall be updated annually. The SWMP documentation  
12 shall include a description of each of the program components included in S7.C,  
13 and any additional actions necessary to meet the requirements of applicable  
14 TMDLs.

15 [ Ecology is going to have develop an approval process for both Phase I and II  
16 SWMPs. What if we submit it and there is something Ecology doesn't like?  
17 Will they be read if there's not a requirement to do so? Will you get back to  
18 us in a timely manner so we can change the program before we get too far  
19 down a road that you won't approve of? Won't we all (permittees and  
20 Ecology) be better protected from lawsuits if Ecology approves these  
21 SWMPs based on a set of criteria (that could be derived from the report  
22 format)? We would suggest you develop an approval process. We would be  
23 willing to help with that effort.]

- 24 2. Each permittee shall estimate track the cost of development and implementation of  
25 the SWMP required by this section. This information shall be included in the annual  
26 report.

27 [It is currently difficult if not impossible to track program components or  
28 even NPDES permit related expenses outside of the Surface Water Program.  
29 The proposed permit requirements would include budget and expenditure  
30 categories for permit activities across multiple Public Works, Tacoma Public  
31 Utilities and General Government offices. Tacoma needs to spend its time  
32 on other, more fruitful efforts to improve surface water quality.  
33 The permit should require that basic budget information be included in the  
34 annual report for the reporting year as well as the proposed surface water  
35 budget for the upcoming year. What is important is how each permittee  
36 meets its permit requirements and this is described in the annual report. As  
37 a tool to measure how each permittee is meeting the permit requirements,  
38 the actual activities completed are the most important.]

- 39 B. The SWMP shall be designed to protect water quality by reducing ~~reduce~~ the  
40 discharge of pollutants from MS4s to the maximum extent practicable. ~~and protect~~  
41 ~~water quality.~~

42 Permittees are to continue implementation of existing stormwater management  
43 programs until they begin implementation of the updated stormwater management  
44 program in accordance with the terms of this permit, including implementation  
45 schedules.

- 46 C. The SWMP shall include the components listed below. All components are mandatory  
47 and must be implemented by each Permittee. The requirements of the stormwater

management program shall apply to municipal separate storm sewers and areas served by municipal separate storm sewers owned or operated by each Permittee. Co-Permittees and Secondary Permittees are responsible for implementation of Stormwater Management Programs as indicated in Special Condition S8.

1. Legal Authority

[All of the Phase I Permittees should have already developed the legal authority necessary to operate their programs in compliance with the first NPDES permit. There is a lot of repetition here.]

This section should state that “Permittees who developed and implemented these authorities under the 1995 permit are not required to resubmit information for this section.”]

- a. No later than the effective date of this permit, each Permittee must be able to demonstrate that they operate pursuant to adequate legal authority which authorizes or enables the Permittee to control discharges to and from municipal separate storm sewers owned or operated by the Permittee.
- b. This legal authority, which may be a combination of statute, ordinance, permit, contracts, orders, interagency agreements, or similar means, shall include the ability to:

- i. Control the contribution of pollutants to municipal separate storm sewers owned or operated by the Permittee from stormwater discharges associated with industrial activity, and control the quality of stormwater discharged from sites of industrial activity;
- ii. Prohibit illicit discharges to the municipal separate storm sewer owned or operated by the Permittee;
- iii. Control the discharge of spills and the dumping or disposal of materials other than stormwater into the municipal separate storm sewers owned or operated by the Permittee;
- iv. ~~Control the contribution of pollutants from one portion of the municipal separate storm sewer system to another portion of the municipal separate storm sewer system, where there is a physical interconnection between municipal separate storm sewers owned or operated by the municipality, and those of an adjoining municipality or other public entity, including co-Permittees;~~

[This is Ecology’s responsibility, not ours. We do not have the authority to do this. If we have problems with another entity, we will approach them, and attempt to work out a solution. However if they do not cease the discharge of pollutants, it is Ecology’s legal mandate under 90.48 to take action to stop the discharge.]

- iv. Require compliance with conditions in ordinances, permits, contracts, or orders; and,
- vi. Within the limitations of state law, carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions, including the prohibition on illicit discharges to the municipal separate storm sewer and compliance with local ordinances.



- 1 c. Each Permittee shall submit, no later than one year from the effective date of  
2 the permit, a statement by its legal counsel that the Permittee has all necessary  
3 legal authority to comply with this permit. [This may be difficult to obtain,  
4 since an attorney may not be willing or able to sign a statement that says  
5 his/her municipality has “all” necessary legal authority.]

6 2. Gathering, Maintaining, and Using Adequate Information

7 The SWMP shall include an ongoing program for gathering, maintaining, and using  
8 adequate information to conduct planning, priority setting, and program evaluation  
9 activities. The information and its form of retention shall include but not be limited  
10 to:

- 11 a. No later than 2 years from the effective date each permittee shall map all  
12 known municipal separate storm sewer outfalls and receiving waters, and  
13 structural stormwater BMPs owned, operated, or maintained by the Permittee.
- 14 b. No later than 4 years from the effective date of this permit each permittee shall  
15 map tributary conveyances, the associated drainage areas, and land use of all  
16 municipal separate storm sewer outfalls owned or operated by the permittee,  
17 with a 24” inches nominal diameter or larger, or an equivalent cross-sectional  
18 area for non-pipe systems, and indicate type, material, and size where known.
- 19 c. No later than 4 years from the effective date of this permit each permittee shall  
20 map areas served by the Permittee’s MS4 that discharge stormwater to  
21 groundwater but are not designed to discharge through facilities regulated  
22 under the Underground Injection Control program.-
- 23 d. Map(s) depicting existing land use
- 24 e. Map(s) depicting zoning.
- 25 f. No later than 2 years from the effective date each permittee shall establish,  
26 maintain and make available to the public, a data base, including at least the  
27 following information. [The following 3 sections need to be more specific.]
- 28 i. Precipitation records. [From an official weather station? Details?]
- 29 ii. Stormwater quality and quantity records. [What kinds of records?]
- 30 iii. Water quality and physical characteristics of receiving water that may be  
31 impacted by stormwater. [What kinds of information?]
- 32 g. Each Permittee shall make available to Ecology, upon request, all available GIS  
33 data layers depicting outfall locations, tributary conveyances, structural  
34 stormwater BMPs, and, if known, the associated drainage areas of 24”  
35 municipal separate storm sewer outfalls owned or operated by the permittee. -  
36 GI- GIS data shall be submitted in the format specified by Ecology at:  
37 <http://www.ecy.wa.gov/services/gis/data/standards.htm>. Notification of updated  
38 GIS data layers shall be included in annual reports.
- 39 h. Upon request, and to the extent appropriate, Permittees shall provide mapping  
40 information to Co-Permittees and Secondary Permittees.

41 3. Coordination

42 [Requiring written formal intergovernmental coordination would require a  
43 large amount of staff time that should be more effectively spent achieving  
44 other permit requirements. No legal mechanism exists to require this type of

coordination. Intergovernmental coordination may be encouraged by the permit, but it should not be required. Tacoma already coordinates with the other Phase I municipalities on permit issues and concerns. Tacoma also cooperates with our neighboring municipalities and with the Puyallup Tribe to respond effectively to flooding issues, illicit discharges and spills, capital improvement projects, participate in watershed council meetings and work on other cross boundary issues as needed.]

[Comments on integrated monitoring stand as before, most monitoring of mutual interest should be done by a third party.]

a. The SWMP shall include coordination mechanisms among Permittees, co-Permittees, and secondary Permittees to encourage coordinated stormwater-related policies, programs and projects within a watershed. The SWMP shall also include coordination among departments within each jurisdiction to ensure compliance with the terms of this permit.

b. Minimum Performance Measures:

- i. No later than 6 months after the effective date of this permit, establish, in writing, and begin implementation of, intragovernmental (internal) coordination procedures to ensure compliance with the terms of this permit.
- ii. No later than 6 months after the effective date of this permit, establish, in writing, and begin implementation of, intergovernmental coordination procedures on stormwater management, including
  - Coordination mechanisms clarifying roles and responsibilities to ensure the control of pollutants between physically interconnected MS3s.
  - Coordinating stormwater management activities, for *shared waterbodies*, among Permittees, to avoid conflicting plans, policies and regulations.
  - Coordination necessary to develop an integrated monitoring program.

#### 4. Public Involvement and Participation

a. The SWMP shall provide ongoing opportunities for public involvement as appropriate in the Permittee's decision making processes involving stormwater management programs and the priorities for appropriate aspects of those programs.

~~, through advisory councils, watershed committees, participation in developing rate structures, stewardship programs, environmental activities, or other similar activities.~~

b. Minimum performance measures:

- i. No later than 6 months after the effective date of this permit, adopt a process to create opportunities for public participation in the decision making processes involving the development, implementation and update



of the permittees SWMP. Each Permittee must develop and implement a process for consideration of public comments on their SWMP.

- ii. No later than 12 months after the effective date of this permit, begin implementation of the public involvement program.
- iii. Each Permittee must make their SWMP, the SWMP documentation required under S7.A(1) and all submittals required by this permit, including annual reports, available to the public on the permittees' website or submitted in electronic format to the Department for posting on the Department's website.

5. Controlling Runoff from New Development, Redevelopment and Construction Sites

- a. The SWMP shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. The program shall apply to private and public development, including roads.

- b. Minimum performance measures:

- i. The Minimum Requirements, thresholds, and definitions in Appendix 1 (which is by this reference as if set forth fully herein), for new development, redevelopment, and construction sites must be included in ordinance or other enforceable documents adopted by the local government. More stringent requirements may be used, and/or certain requirements may be tailored to local circumstances through the use of basin plans or other similar water quality and quantity planning efforts. Such local requirements and thresholds must provide equal protection of receiving waters and equal levels of pollution control as compared to Appendix 1.
- ii. Adjustment and variance criteria equivalent to those in Appendix 1 must be included.
- iii. The local requirements must include a site planning process and BMP selection and design criteria that, when used to implement the minimum requirements on a site specific basis, will protect water quality, reduce the discharge of pollutants to the maximum extent practical, and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, reasonable methods of prevention, control and treatment (AKART) prior to discharge. Permittees must document how the criteria and requirements will protect water quality, reduce the discharge of pollutants to the maximum extent practical, and satisfy the state AKART requirements.  
  
Permittees who choose to use the site planning process, and BMP selection and design criteria in the 2005 Stormwater Management Manual for Western Washington, or an equivalent manual approved by the Department, may cite this choice as their sole documentation to meet this requirement.
- iv. The program must allow non-structural preventive actions and source reduction approaches such as *Low Impact Development* Techniques (LID), measures to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation.

- v. Deadlines for and Review of Local Manual and Ordinances. No later than 12 months from the effective date of this permit, each Permittee must adopt a local program that meets the requirements in S7C.5.a.i through iv., above. Ecology review and approval of the local manual and ordinances is required. To ensure compliance with the 12 month deadline, Permittees may use the following review process:
- (1) The Permittee submits draft enforceable requirements, technical standards and manual to Ecology no later than 8 months after the effective date of this permit. Ecology will review and provide written response to the Permittee.
  - (2) If this review process is followed, the deadline for adoption of enforceable requirements, technical standards and manual shall be automatically extended by the number of calendar days that Ecology exceeds a 60 day period for written response.
- vi. No later than 12 months after the effective date of this permit, the program must establish legal authority, through approval of new development, to inspect private stormwater facilities and enforce maintenance standards.
- vii. No later than 18 months after the effective date of this permit, the program must include a process of permits, plan review, inspections, and enforcement capability to meet the following standards for both private and public projects, using *qualified personnel* (staff or qualified contractors):
- (1) Review all stormwater site plans for proposed development activities that meet the thresholds in Appendix 1.
  - (2) Inspect prior to clearing and construction, all development sites that are hydraulically near a sediment/erosion-sensitive feature or have a high potential for sediment transport as determined through plan review based on definitions and requirements in Appendix 2, which is by this reference as if set forth fully herein.
  - (3) Inspect all permitted development sites during construction to ensure proper installation and maintenance of required erosion and sediment controls. Enforce as necessary based on the inspection. This inspection may be combined with other inspections provided it is still performed by qualified personnel ( staff or contractors).
  - (4) Inspect all development sites upon completion of construction and prior to final approval/occupancy to ensure proper installation of permanent erosion controls and stormwater facilities/BMPs. Enforce as necessary based on the inspection. Also, ensure a maintenance plan is completed and responsibility for maintenance is assigned. This inspection may be combined with other inspections provided it is still performed by qualified personnel ( staff or contractors).
  - (5) Compliance with the inspection requirements of S7.C.5.(b)vii.(2), (3), and (4), above shall be determined by the presence of an established inspection program designed to inspect all sites.
  - (6) Each Permittee shall track and maintain records of all inspections and enforcement actions.

- 1                   viii. No later than the effective date of this permit, the Permittee must provide  
2                   the "*Notice of Intent for Construction Activity*" and/or copies of the "*Notice*  
3                   *of Intent for Industrial Activity*" to representatives of proposed new  
4                   development and redevelopment. Permittees will continue to enforce  
5                   local ordinances controlling runoff from construction sites that also require  
6                   coverage under the Industrial Stormwater General Permit and/or the  
7                   Construction Stormwater General Permit.
- 8                   ix. Each permittee must provide *adequate training for staff* involved in  
9                   Controlling Stormwater Runoff from New Development, Redevelopment,  
10                  and Construction Sites, including permitting, plan review, construction site  
11                  inspections, and enforcement, to carry out the provision of this program  
12                  component.

13                  6. Structural Stormwater Controls

- 14                  a. The SWMP shall include a program to construct structural stormwater controls  
15                  to address impacts to beneficial uses resulting from disturbances to watershed  
16                  hydrology and stormwater pollutant discharges. This program shall consider  
17                  impacts caused by stormwater discharges from areas of existing development,  
18                  including runoff from highways, streets and roads owned or operated by the  
19                  Permittee, and areas of new development, where impacts are anticipated as  
20                  development proceeds. This program shall address impacts that are not  
21                  adequately controlled by the other required actions of the SWMP, and shall  
22                  identify necessary actions and an implementation schedule. It is understood  
23                  that mitigating all existing development to current standards is not feasible and  
24                  that only the highest ranked problems can be addressed.

25                  The program shall include the construction of projects such as regional flow  
26                  control facilities, water quality treatment facilities, and retrofitting of existing  
27                  flood control facilities. Permittees should also consider other means to address  
28                  impacts from existing development, such as reduction of hydrologic changes  
29                  through the use of on-site (infiltration and dispersion) stormwater management  
30                  BMPs and site design techniques, habitat acquisition or restoration of forest  
31                  cover and riparian buffers, for compliance with this requirement. Permittees  
32                  may not use in-stream culvert replacement projects for compliance with this  
33                  requirement.

34                  b. Minimum Performance Measures:

- 35                  i. No later than 12 months after the effective date of this permit, each  
36                  Permittee shall develop and begin implementing a Structural Stormwater  
37                  Control program designed to control stormwater impacts that are not  
38                  adequately controlled by the other required actions of the SWMP. The  
39                  program shall include a description of projects and a construction  
40                  schedule, for projects that are scheduled for implementation during the  
41                  term of this permit.
- 42                  ii. Each Permittee shall include a description of the Structural Stormwater  
43                  Control Program in the written documentation of their SWMP that must be  
44                  submitted with the first year annual report. The description of the  
45                  Structural Stormwater Control Program must include the following:
- 46                      • The goals that the Structural Stormwater Control Program are  
47                      intended to achieve.

- The planning process used to develop the Structural Stormwater Control Program, including: the geographic scale of the planning process, the issues and regulations addressed, the steps in the planning process, the types of characterization information considered, the amount budgeted for implementation, and the public involvement process.

iii. For individual projects or programs of projects, provide a description of the expected benefits including reductions in pollutant loading, flow reductions, habitat enhancement or other benefits. provide the following information:

- ~~The estimated pollutant load reduction that will result from each project designed to provide stormwater treatment.~~
- ~~The expected outcome of each project designed to provide flow control.~~
- ~~Any other expected environmental benefits.~~

iv. Information about the Structural Stormwater Control Program shall be updated with each annual report.

## 7. Source Control Program

a. The SWMP shall include a program to reduce pollutants in runoff from areas that discharge to municipal separate storm sewers owned or operated by the Permittee. The program shall include:

- Requiring application of operational and structural source control BMPs, and, if necessary, treatment BMPs to pollution generating sources associated with existing land uses and activities.
- Inspections of pollutant generating sources at commercial, industrial and multifamily properties to ensure implementation of BMPs to control pollution discharging into municipal separate storm sewers owned or operated by the Permittee.
- Application and enforcement of local ordinances at all applicable sites, ~~including those with industrial stormwater general NPDES permit coverage.~~ Municipalities may refer stormwater discharge problems associated with violations of local ordinances only after implementing progressive enforcement as required in S7.C.7.b.iv, below. ~~Municipalities may not refer stormwater discharge problems associated with industrial NPDES Permittees to Ecology if the Permittee has local ordinances that impose stricter standards than imposed through the permit issued by Ecology.~~ Permittees that are in compliance with the terms of this permit will not be held liable by Ecology for water quality standard violations caused by industries covered under an NPDES permit issued by Ecology.

**Remove the requirement that the Permittee take responsibility for facilities with current industrial stormwater general NPDES permit coverage. It places unnecessary burden on the local Permittee in that the NPDES permit holder meeting all terms and conditions of that**

permit has shown it is meeting all water quality discharge limits acceptable to the state. In addition, the NPDES permit holder is likely to have taken extensive steps, requiring significant resources, to comply with the terms and conditions of the permit.]

- iv. Reduction of pollutants associated with the application of pesticides, herbicides, and fertilizer discharging into municipal separate storm sewers owned or operated by the Permittee.

b. Minimum Performance Measures for Source Control Program:

- i. No later than 12 months after the effective date of this permit, adopt and begin enforcement of an ordinance requiring the application of source control BMPs for pollutant generating sources associated with existing land uses and activities (See Appendix 3, to identify pollutant generating sources). The local source control requirements must include operational and structural source control BMPs that, when used on a site specific basis, will protect water quality, reduce the discharge of pollutants to the maximum extent practical, and satisfy the state requirement under chapter 90.48 RCW to apply all known, available, reasonable methods of prevention, control and treatment (AKART) prior to discharge. Permittees must document the stormwater source control BMP selection process for different urban land uses, the types of BMPs and design criteria for those BMPs, the technical basis and an assessment of how the practices will protect water quality, reduce the discharge of pollutants to the maximum extent practical, and satisfy the state AKART requirements. Permittees may choose to use the source control BMPs in Volume IV of the 2001 Stormwater Management Manual for Western Washington. If the demonstration approach is chosen, the Permittee must submit the proposed source control program and all necessary documentation to Ecology for review, no later than 9 months after the effective date of this permit. If Ecology does not request changes within 30 days, the proposed source control BMPs are considered approved.

Operational source control BMPs shall be required for all pollutant generating sources. Structural source control BMPs shall be required for pollutant generating sources that cause an illicit discharge or other pollution problem, including: causing or contributing to a violation of surface water, ground water, or sediment management standards; nuisance; or threat to public health and safety, because of inadequate stormwater controls. Implementation of source control requirements may be done through education and technical assistance programs, provided that formal enforcement authority is available to the Permittee and is used as necessary.

- ii. No later than 12 months after the effective date of this permit, compile a list of existing commercial, multifamily, industrial and government sites which are potentially pollution generating (see Appendix 3 for identifying sites). The list shall be updated no later than 180 days prior to the expiration date of this permit.

1           iii. Starting no later than 24 months after the effective date of this permit,  
2           conduct an inspection program for all the listed sites, with adequate  
3           enforcement capability to ensure implementation of source control BMPs in  
4           accordance with the ordinance required in S7.C.8.b.i., above. 60% of the  
5           total of the listed properties must be inspected within 5 years of the  
6           effective date of the permit, provided that a portion of the inspections must  
7           be conducted during each subsequent year of the permit term. The  
8           inspection program shall be designed to inspect all sites, to the extent  
9           allowable under state law, once every 8 years. Adjust the inspection  
10          program as needed to incorporate new sites added to the list and reflect  
11          sites already inspected.

12          iv. No later than 24 months after the effective date of this permit, each  
13          Permittee shall implement a progressive enforcement policy to ensure that  
14          facilities are brought into compliance with stormwater requirements within a  
15          reasonable time period as specified below:

16               (1) In the event that a Permittee determines, based on an inspection  
17               conducted above, that a site has failed to adequately implement all  
18               necessary BMPs, that Permittee shall take progressive enforcement  
19               action which, at a minimum, shall include a follow up inspection  
20               within 4 weeks from the date of the initial inspection.

21               (2) When a Permittee determines that a facility has failed to adequately  
22               implement BMPs after a follow-up inspection, that Permittee shall  
23               take further enforcement action as established through authority in  
24               its municipal code and ordinances, or through the judicial system.

25               (3) Each Permittee shall maintain records, including documentation of  
26               each site visit, inspection reports, warning letters, notices of  
27               violations, and other enforcement records, demonstrating a good  
28               faith effort to bring facilities into compliance. Each permittee shall  
29               also maintain records of sites that are not inspected because the  
30               property owner denies entry.

31               (4) A Permittee may refer violations of local ordinances to Ecology  
32               provided that the Permittee has made a good faith effort of  
33               progressive enforcement. At a minimum a Permittee's good faith  
34               effort must include documentation of:

- 35                       • Two follow-up inspections, and
- 36                       • Two warning letters or notices of violation

37          v. ~~No later than 12 months after the effective date of this permit, adopt and~~  
38          ~~implement policies and procedures to reduce pollutants associated with the~~  
39          ~~application of pesticides, herbicides, fungicides, and fertilizer on all public~~  
40          ~~property owned or managed by the Permittee, including parks and road~~  
41          ~~right-of-ways. The program shall include the following, at a minimum:~~

42                       [Ecology does not have the authority to require these actions, with  
43                       perhaps the exception of tracking fertilizers. Pesticides,  
44                       herbicides, and fungicides are all regulated by the Department of

Agriculture (WDOA) or EPA (via labeling). We ensure that contractors and personnel are properly certified by WDOA, and that no involvement from Ecology is necessary for terrestrial applications. Municipal applications pale in comparison to private applications, and requirement for education via a number of partners is sufficient.

Eliminate this section. All that is needed is a statement such as the following:] No later than 12 months after the effective date of this permit, Permittees or their contractors shall apply terrestrial pesticides, herbicides and rodenticides in a manner consistent with labeling and FIFRA regulations, and applicators shall have all applicable licenses required by the Washington State Department of Agriculture. In the event of aquatic pesticide usage, additional permits will be obtained from the Department of Ecology or the Department of Agriculture, as appropriate.

~~(1) Identify and quantify all pesticides, herbicides, fungicides, and fertilizer used by the Permittee;~~

~~(2) Identify application practices of each listed product: location, timing, application rates;~~

~~(3) Ensure no application of pesticides, herbicides, fungicides, or fertilizers immediately before, during or after a rain event, or when water is flowing off the area to be applied;~~

~~(4) Ensure that staff applying pesticides or herbicides are certified by the Washington State Department of Agriculture;~~

~~(5)(1) Implement procedures to use and manage herbicides, pesticides, fungicides, and fertilizer consistent with the adopted source control BMPs.~~

- vi. Provide a minimum of two training sessions regarding the source control ordinance, inspection procedures and source control BMPs, for inspection and other appropriate field staff, to facilitate adequate implementation of the source control program. The first training shall be conducted no later than 24 months after the effective date of this permit. The second training shall be conducted no later than 48 months after the effective date of this permit.

#### 8. Illicit Connections and Illicit Discharges Detection and Elimination

- a. The SWMP shall include an ongoing program to detect, remove and prevent illicit connections and illicit discharges, including spills, into the municipal separate storm sewers owned or operated by the Permittee. The program shall include:
- i. Effectively prohibiting all types of illicit discharges to the municipal separate storm sewers owned or operated by the Permittee other than those authorized under a separate NPDES permit. The categories of non-stormwater discharges listed in Appendix 4 must be addressed only if

1 identified as a contributor of pollution to the MS3s owned or operated by the  
2 Permittee. As necessary, the Permittee(s) shall incorporate appropriate  
3 control measures in the stormwater management program to ensure the  
4 non-stormwater discharges listed in Appendix 4 are not sources of  
5 pollutants to waters of the state.

6 ii. Detecting and eliminating illicit connections to municipal separate storm  
7 sewers owned or operated by the Permittee.

8 iii. On-going identification of illicit discharges into the municipal separate storm  
9 sewer system, through inspections, monitoring and complaint response.

10 iv. Preventing, responding to, and cleaning up illicit discharges into the  
11 municipal separate storm sewers owned or operated by the Permittee.

12 b. Minimum Performance Measures:

13 i. No later than the effective date of this permit, each Permittee must continue  
14 implementing an on-going program to prevent, identify and respond to illicit  
15 connections and illicit discharges. The program shall include adopting  
16 procedures for reporting and correcting or removing illicit connections, spills  
17 and other illicit discharges when they are suspected or identified. The  
18 program shall also include procedures for controlling pollutants entering the  
19 MS4 from an interconnected, adjoining MS4. Illicit connections and illicit  
20 discharges shall be identified through field screening, inspections,  
21 complaints/reports, construction inspections, maintenance inspections,  
22 source control inspections, and/or monitoring information, as appropriate.

23 ii. Each Permittee shall provide appropriate training for municipal field staff  
24 who are responsible for identification, investigation, termination, cleanup,  
25 and reporting illicit discharges, including spills, improper disposal and illicit  
26 connections. Training shall be completed no later than 12 months after the  
27 effective date of this permit. Refresher training shall be conducted on an  
28 annual basis thereafter.

29 iii. All municipal field staff, which as part of their normal job responsibilities  
30 might come into contact with or otherwise observe an illicit discharge or  
31 illicit connection to the storm sewer system shall be trained on the  
32 identification of an illicit discharge/connection and on the proper procedures  
33 for reporting the illicit discharge/connection. Initial training shall be  
34 completed no later than two years from the effective date of this permit.  
35 Permittees shall conduct refresher training on an annual basis thereafter.

36 iv. Each Permittee shall initiate a program to develop and maintain a map of all  
37 connections to the municipal separate storm sewer authorized or allowed  
38 by the permittee. Each Permittee shall map connections to the municipal  
39 separate storm sewer according to the following schedule:

40 City of Seattle and City of Tacoma: second year annual report

41 Snohomish, King, Pierce and Clark Counties: one half the area of the  
42 County within urban growth boundaries and urbanized areas in the 4<sup>th</sup>  
43 year annual report

44 v. Each Permittee shall continue to provide a publicly listed water quality  
45 citizen complaints/reports telephone number. This program shall be in



place no later than the effective date of this permit. Complaints shall be responded to in accordance with S7.C.8.b.vii. and ix., below.

- vi. Each Permittee shall conduct on-going screening for illicit connections, including indicator monitoring, and tracking discharges to the source. The Permittee shall conduct an ongoing program to identify illicit connections.

(1) City of Seattle and City of Tacoma shall schedule the screening for illicit discharges such that all of the City's municipal separate storm sewers are screened at least once during the term of this permit or provide documentation of an equivalent program to identify and track discharges to the source.

(2) Snohomish, King, Pierce and Clark Counties shall schedule the screening program such that all the municipal separate storm sewers located in one half the area of the County within urban growth boundaries and urbanized areas are screened during the term of this permit.

- vii. Screening for illicit discharges shall be conducted using one or more of the methods listed below:

(1) The field screening method in 40 CFR 122.26(d)(1)(iv).

(2) Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments, Center for Watershed Protection, October 2004.

(3) Other alternative methods that have been approved by Ecology.

[Systematic screening for illicit connections is not used in Tacoma and is believed to not be as effective in identifying illicit connections as Tacoma's current program. Tacoma is successful in finding and removing illicit discharges through complaints, sanitary/storm business inspections, calls from maintenance crews, calls from solid waste crews, calls from volunteer sampling crews and public groups, identification during TVing storm lines and source tracing. Tacoma's existing illicit discharge detection program provides cost effectiveness and increased efficiencies (staff and public education and awareness) then a FTE to field screen every outfall in Tacoma.]

- viii. Response to Illicit Connections

(1) Investigation: Upon discovery or upon receiving a report of a suspected illicit connection, Permittees shall initiate an investigation within 21 days, to determine the source of the connection, the nature and volume of discharge through the connection, and the responsible party for the connection.

(2) Termination: Upon confirmation of the illicit nature of a storm drain connection, Permittees shall ensure termination of the connection within 180 days, using enforcement authority as needed.

- ix. Each Permittee, no later than 6 months after the effective date for this permit, shall develop and implement procedures to prevent, respond to and clean up spills and improper disposal into municipal separate storm sewers owned or operated by the Permittee. Under these procedures, each Permittee shall investigate, within 7 days on average, any complaints/reports or monitoring information that indicates a potential illicit

1 discharge, including a spill or illegal dumping. Permittees shall also  
2 investigate as soon as possible, within 24 hours, those problems/violations  
3 judged to be urgent or severe, or reported as emergencies.

- 4 x. Each Permittee shall track and maintain records of the illicit discharge  
5 detection and elimination program, including documentation of inspections,  
6 complaint/spill response and other enforcement records.

7  
8 9. Operation and Maintenance Program

9 [Separate the private operation and maintenance activities from the public  
10 ones. Suggest moving the private O&M to the source control section. The  
11 municipalities are not responsible for the private O&M activities, but are  
12 responsible for inspecting them and making sure they don't cause pollution,  
13 which is a source control activity.

14 We also suggest that you recognize that Road Maintenance is being done via  
15 the Regional Roads Maintenance Plan worked by the Tri-County ESA  
16 partnership (with Ecology at the table) and approved by the National Oceanic  
17 and Atmospheric Administration (NOAA) Fisheries.]

- 18 a. The SWMP shall include a program to conduct maintenance activities that  
19 prevent or reduce stormwater impacts. The program shall include:  
20 i. Maintenance standards and programs to ensure proper and timely  
21 maintenance of public and private stormwater facilities.  
22 ii. Practices for operating and maintaining public streets, roads, and highways  
23 to reduce stormwater impacts. [Identify the Tri-County program]  
24 iii. Policies and procedures to reduce pollutants associated with the application  
25 of pesticides, herbicides, and fertilizer by the Permittee's agencies or  
26 departments. [This is not within Ecology's authority, it is regulated by  
27 the State Dept. of Agriculture.]  
28 iv. Practices for reducing stormwater impacts from *heavy equipment*  
29 *maintenance or storage yards*, and from *material storage facilities*.

30 b. Minimum Performance Measures:

- 31 i. Maintenance Standards. No later than 12 months after the effective date of  
32 this permit, each Permittee must establish maintenance standards that are  
33 as protective or more protective of facility function than those specified in  
34 Chapter 4 of Volume V of the 2005 Stormwater Management Manual for  
35 Western Washington.

36 The facility-specific maintenance standards are intended to be conditions  
37 for determining if maintenance actions are required as identified through  
38 inspection. They are not intended to be measures of the facility's required  
39 condition at all times between inspections. Exceeding these conditions at  
40 any time between inspections and/or maintenance does not automatically  
41 constitute a violation of these standards. However, based upon inspection  
42 observations, the inspection and maintenance schedules shall be adjusted  
43 to minimize the length of time that a facility is in a condition that requires a  
44 maintenance action. These standards are violated when an inspection  
45 identifies a required maintenance action related to facility function, and that

1 action is not performed in a timely manner, for example, within 90 days for  
2 typical maintenance, within 6 months for revegetation, and within 1 year for  
3 maintenance that requires capital construction of less than \$25,000.

4 [Are these examples, or requirements. Very specific for examples.  
5 Delete this section, and leave to ordinances you are requiring in other  
6 parts of this permit, which will vary by permittee and their  
7 governmental system].

8 ii. Maintenance of stormwater facilities regulated by the Permittee

- 9 (1) No later than 6 months after the effective date of this permit, each  
10 Permittee shall ~~update~~ evaluate existing ordinances or other  
11 enforceable documents requiring maintenance of all permanent  
12 stormwater treatment and flow control facilities regulated by the  
13 Permittee, in accordance with maintenance standards established  
14 under S7.C.9.b.i, above.

15 [Lengthen the time frame. If we do need to make changes, it will  
16 take much longer than 6 months. If our ordinance doesn't need  
17 updating, then this wording puts us in violation of this section].

- 18 (2) No later than 12 months after the effective date of this permit, each  
19 Permittee shall develop and implement an initial inspection schedule  
20 for all stormwater treatment and flow control facilities regulated by  
21 the Permittee that ensures inspection of each facility at least once  
22 during the term of this permit to enforce compliance with adopted  
23 maintenance standards as needed based on the inspection.

- 24 (3) No later than 48 months after the effective date of this permit, each  
25 Permittee shall develop an on-going inspection schedule for  
26 implementation after the initial schedule to ensure annual  
27 inspections of all stormwater treatment and flow control facilities  
28 regulated by the Permittee. The annual inspection schedule may be  
29 changed to a lesser or greater frequency of inspection, as  
30 appropriate to ensure compliance with maintenance standards,  
31 based on maintenance records of double the length of time of the  
32 proposed inspection frequency.

- 33 (4) No later than 24 months after the effective date of this permit each  
34 Permittee shall manage maintenance activities to inspect all new  
35 permanent stormwater treatment and flow control facilities in new  
36 residential developments every 6 months during the period of  
37 heaviest house construction (i.e., 1 to 2 years following subdivision  
38 approval) to identify maintenance needs and enforce compliance  
39 with maintenance standards as needed.

- 40 (5) Compliance with the inspection requirements of S7.C.9.b.ii.(2),(3),  
41 and (4), above, shall be determined by the presence of an  
42 established inspection program designed to inspect all sites.

43 iii. Maintenance of stormwater facilities owned or operated by the Permittee

- 44 (1) No later than 24 months after the effective date of this permit each  
45 Permittee shall begin implementing a program to inspect all  
46 stormwater treatment and flow control facilities annually and take

1 appropriate maintenance action in accordance with adopted  
2 maintenance standards. The annual inspection schedule may be  
3 changed to a lesser or greater frequency of inspection as  
4 appropriate to ensure compliance with maintenance standards  
5 based on maintenance records of double the length of time of the  
6 proposed inspection frequency.

- 7 (2) No later than 24 months after the effective date of this program each  
8 Permittee shall begin implementing a program to conduct spot  
9 checks of potentially damaged treatment and flow control facilities  
10 after major storm events. If spot checks indicate widespread  
11 damage/maintenance needs, inspect all stormwater treatment and  
12 flow control facilities that may be affected. Conduct repairs or take  
13 appropriate maintenance action in accordance with maintenance  
14 standards established under S7.C.9.b.i, above, based on the results  
15 of the inspections.

16 What constitutes a major storm event? This needs to be  
17 defined. Our experience is that if there is some type of damage  
18 that alters flow, people will call in and report it, or, our  
19 maintenance personnel already know about structures that are  
20 particularly vulnerable, and will check them. We would  
21 emphasize that we know our systems well, and know how to  
22 take care of them. We have developed an emergency response  
23 plan for major storm events and have an annual training  
24 session in the fall. This plan outlines all of the problem sites  
25 and they are checked throughout the storm event.  
26 Prescriptiveness at this level is not necessary.]

- 27 (3) Compliance with the inspection requirements of S7.C.9.b.iii.(1) and  
28 (2), above, shall be determined by the presence of an established  
29 inspection program designed to inspect all sites.

30 iv. Catch Basin Maintenance

- 31 (1) No later than 24 months after the effective date of this permit each  
32 Permittee shall begin implementing a program to annually inspect  
33 catchbasins and inlets owned or operated by the Permittee. The  
34 annual inspection schedule may be changed to a lesser or greater  
35 frequency of inspection, as appropriate to ensure compliance with  
36 maintenance standards, based on the Permittees knowledge and  
37 historic performance of their system.

38 Inspections may be conducted on a "circuit basis" whereby a sampling of  
39 catchbasins and inlets within each circuit is inspected to identify  
40 maintenance needs. Include in the sampling an inspection of the  
41 catchbasin immediately upstream of any system outfall. Clean all  
42 catchbasins within a given circuit at one time if the inspection  
43 sampling indicates cleaning is needed to comply with maintenance  
44 standards established under S7.C.9.b.i, above. As an alternative to  
45 inspecting catchbasins on a "circuit basis," the Permittee may  
46 inspect all catchbasins, and clean only catchbasins where cleaning  
47 is needed to comply with maintenance standards. The disposal of

1 decant water shall be in accordance with the requirements in  
2 Appendix 7, which is by this reference as if set forth fully herein.

- 3 (2) The Permittee shall require cleaning of private catchbasins and  
4 inlets whenever they are found to be out of compliance with adopted  
5 maintenance standards.

6 v. Records of inspections and maintenance or repair activities conducted by  
7 the Permittee shall be maintained.

8 vi. Establish practices to reduce stormwater impacts associated with runoff  
9 from public parking lots, public streets, public roads, highways, and road  
10 maintenance activities within 12 months of the effective date of this permit.

11 [For this section, and the catchbasin section(any of the roads  
12 maintenance portions), the following should be added:] For those  
13 entities adopting the Regional Road Maintenance Practices, developed by  
14 the Tri-County ESA partnership and in cooperation with the Department of  
15 Ecology, and approved by NOAA Fisheries, implementation of those  
16 practices shall be deemed full compliance with the road maintenance  
17 practices portion of this permit

18  
19 Implementation of practices shall begin no later than 18 months after the  
20 effective date of this permit, and continue on an ongoing basis throughout  
21 the term of the permit. The following activities must be addressed:

- 22 (1) Pipe cleaning  
23 (2) Cleaning of culverts that convey stormwater in ditch systems  
24 (3) Ditch maintenance  
25 (4) Street cleaning  
26 (5) Road repair and resurfacing, including pavement grinding  
27 (6) Snow and ice control  
28 (7) Utility installation  
29 (8) Maintaining roadside areas, including vegetation management.  
30 (9) Dust control  
31 (10) Pavement striping maintenance

32 vii. No later than 12 months after the effective date of this permit each  
33 Permittee shall establish and implement policies and procedures to reduce  
34 pollutants in discharges from all lands owned or maintained by the  
35 Permittee, including but not limited to: parks, open space, road right-of-  
36 ways, maintenance yards, and at stormwater treatment and flow control  
37 facilities. These policies and procedures must address, but are not limited  
38 to:

39 [Most of these items are in the Manual in the Source Control and BMP  
40 sections. Why is it being made a separate requirement here? Delete  
41 this section entirely, and say will follow Manual.]

- Application of fertilizer, pesticides, and herbicides, including the development of an Integrated Pest Management Program

[Not an Ecology function.]

- Sediment and erosion control
- Landscape maintenance and vegetation disposal
- Trash management
- Building exterior cleaning and maintenance

viii. No later than 24 months after the effective date of this permit, develop and implement an ongoing training program. Conduct a minimum of 2 training sessions, during the term of the permit, for appropriate employees of the Permittee whose construction, operations or maintenance job functions may impact stormwater quality. This training program shall address the importance of protecting water quality, the requirements of this permit, operation and maintenance standards, inspection procedures, selecting appropriate BMPs, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges. Documentation of the training provided and the employees trained shall be included in the third annual report and every annual report thereafter. Regulated municipalities (including those covered under other municipal permits) are encouraged to pool municipal resources for more cost effective implementation of this training program. The first training session shall be completed no later than 2 years after the effective date of this permit; the second training session shall be completed no later than the end of the permit term.

ix. Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for all *heavy equipment maintenance or storage yards*, and material storage facilities owned or operated by the Permittee, that are not covered under the Industrial Stormwater General permit. The SWPPP is a documented plan to implement measures to identify, prevent, and control the contamination of discharges of stormwater to surface or ground water. The SWPPPs must be developed within 18 months of the effective date of this permit. Implementation of non-structural BMPs shall begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement. The SWPPP shall include periodic visual observation of stormwater outfalls and receiving water in close proximity of known stormwater outfalls, during a storm event, to evaluate the effectiveness of BMPs.

[Tacoma Water is concerned the permit is trying to address heavy equipment maintenance or storage yards, and material storage facilities that are not covered under an industrial permit as if it was covered under an industrial permit. As Appendix 3 demonstrates,



1 there are numerous sites both private and public that requires  
2 Source Control BMPs.

3 Although an advisable document to have, there is no nexus to  
4 retroactively force all development sites to provide SWPPP. These  
5 sites are only required to provide them when submitting for  
6 development permits. Why should municipal sites operating under  
7 approved permits be forced retroactively to create a SWPPP? If we  
8 are not in compliance with source control BMPs per the Manual, we  
9 are still subject to the same inspection and enforcement criteria  
10 private developments are per the Manual and the Surface Water  
11 Management Program.

12 This particular requirement appears to be a paper exercise with little  
13 value, as most of the documentation required under the SWPPP.  
14 Operation and Maintenance manuals, Spill Control Plans and  
15 employee education regarding our surface water facilities are a  
16 much better use of our time.

17 Tacoma Water has no problem with providing SWPPPs when we  
18 submit for permits for these sites at the time of redevelopment. We  
19 also don't object to working with Source Control inspectors to  
20 determine areas to improve our business practices.

21 However, Tacoma Water strongly objects to the statement "A  
22 schedule for implementation of structural BMPs shall be included in  
23 the SWPPP." There is no nexus to require implementation of  
24 structural BMPs for sites that are not under a development permit  
25 action or some sort of compliance action. Tacoma Water's schedule  
26 for implementation of structural BMPs will coincide with any future  
27 development plans regarding our heavy equipment maintenance or  
28 storage yards, and material storage facilities.

#### 29 30 10. Education and Outreach Program

- 31 a. The SWMP shall include an education and outreach program aimed at  
32 residents, businesses, industries, elected officials, policy makers, planning staff  
33 and other employees of the Permittee. The goal of the education program is to  
34 reduce or eliminate behaviors and practices that cause or contribute to adverse  
35 stormwater impacts. An education and outreach program may be developed  
36 locally or regionally.
- 37 b. Minimum Performance Measures:
- 38 i. No later than 12 months after the effective date of this permit the each  
39 Permittee shall implement or participate in an education and outreach  
40 program that uses different types of media (brochures alone are not  
41 adequate), and targets a wide range of interest groups to meet the  
42 education objectives provide education on the topics listed in iii, below.

- 1 |           ii. The education and outreach program shall meet all of the following  
2 | objectives by the expiration date of this permit: ~~address the following topics~~  
3 | ~~and target audiences:~~
- 4 |           (1) Provide education opportunities for all audiences about the  
5 | importance of improving water quality, reducing impervious surfaces  
6 | and protecting the existing and designated beneficial uses of waters  
7 | of the state, about potential impacts caused by stormwater  
8 | discharges, and methods for avoiding, minimizing, reducing and/or  
9 | eliminating the adverse impacts of stormwater runoff.
- 10 |           (2) Provide and encourage public participation in environmental  
11 | stewardship activities.
- 12 |           (3) Provide information to the general public about actions individuals can  
13 | take to improve water quality ~~and reduce impervious surfaces~~ (e.g.,  
14 | lawn care with less fertilizer and pesticides, more use of native  
15 | vegetation for landscaping, proper disposal of pet wastes, etc.) and  
16 | reduce the runoff effects of impervious surfaces (e.g., use of  
17 | permeable pavement, create less impervious surfaces, etc.).
- 18 |           (4) Provide information to the general public on proper use and disposal  
19 | of pesticides, herbicides, and fertilizers. [This is not our  
20 | responsibility.]
- 21 |           (5) Provide information to engineers, construction contractors,  
22 | developers, development review staff, and land use planners on  
23 | technical standards, the development of stormwater site plans and  
24 | erosion control plans, and BMPs for mitigating contaminated runoff  
25 | and the quantity of runoff from development sites.
- 26 |           (6) Provide information to engineers, contractors, developers, and the  
27 | public on land development practices and non-structural BMPs, such  
28 | as Low Impact Development, that eliminate, avoid, or minimize  
29 | adverse stormwater impacts.
- 30 |           (7) Provide information to the general public that explains illicit discharges  
31 | and their impacts, and promotes their removal. ~~to explain the~~  
32 | ~~definition and impacts, and promote removal of illicit discharges.~~
- 33 |           (8) Provide information to the general public that ~~to promotes~~ promote  
34 | proper management and disposal of toxic materials (e.g. used oil,  
35 | batteries, vehicle fluids, home chemicals.)
- 36 |           (9) Provide information to businesses and homeowners that promotes  
37 | implementation of source control BMPs to reduce the discharge of  
38 | pollutants form businesses and residential activities. ~~commercial~~  
39 | ~~target audiences in coordination with the source control inspection~~  
40 | ~~program.~~
- 41 |           iii. ~~Each Permittee shall develop and implement a public education and~~  
42 | ~~outreach program designed to reach 100% of the target audiences~~  
43 | ~~identified in S7.c.10.b.ii., above, within their jurisdiction, by the expiration~~  
44 | ~~date of this permit.~~
- 45 |           iv.iii. Each permittee shall track and maintain records of public education and  
46 | outreach activities.



**S8. STORMWATER MANAGEMENT PROGRAM FOR CO-PERMITTEES AND  
SECONDARY PERMITTEES**

[Delete the entire secondary permittees section].

**A.**

Each Co-Permittee and Secondary Permittee shall implement a stormwater management program (SWMP) during the term of this permit. For the purpose of this permit a SWMP for a Co-Permittee or Secondary Permittee is a set of actions and activities comprising the components in this Special Condition as outlined below. The SWMP shall also include any additional controls identified in Appendix 6 of this permit which are necessary to meet applicable TMDL requirements.

1. S8.B Coordination, and S8.C Legal Authority are applicable to all Co-Permittees and Secondary Permittees covered under this permit.
2. S8.D is applicable only to Port Districts Covered under this Permit.
3. S8.E is applicable only to King County as a Co-Permittee with the City of Seattle for MS4s owned by King County but located within the City of Seattle.
4. S8.F is applicable all other Secondary Permittees excluding Port Districts.

**B. Coordination**

The SWMP for all Co-Permittees and Secondary Permittees shall include mechanisms among Permittees, Co-Permittees, and Secondary Permittees to encourage coordinated stormwater-related policies, programs and projects within a watershed and interconnected municipal separate storm sewers. Where relevant and appropriate, the SWMP shall also include coordination among departments within each jurisdiction to ensure compliance with the terms of this permit.

No later than 6 months after receiving coverage under this permit the SWMP shall provide for appropriate coordination with the City and County in which the Secondary Permittee or Co-Permittee is located.

**C. Legal Authority**

To the extent allowable under state law, all Co-Permittees and Secondary Permittees shall operate pursuant to adequate legal authority which authorizes or enables the Secondary Permittee and Co-permittee to control discharges to and from municipal separate storm sewers owned or operated by the Secondary Permittee.

This legal authority, which may be a combination of statute, ordinance, permit, contracts, orders, interagency agreements, or similar means, shall include the ability to:

1. Control the contribution of pollutants to municipal separate storm sewers owned or operated by the Co-Permittee or Secondary Permittee from stormwater discharges associated with industrial activity, and control the quality of stormwater discharged from sites of industrial activity, and control the quality of stormwater discharged from sites of industrial activity into the Permittees municipal separate storm sewer

2. Prohibit illicit discharges to the municipal separate storm sewer owned or operated by the Co-Permittee or Secondary Permittee;
3. Control the discharge of spills and the dumping or disposal of materials other than stormwater into the municipal separate storm sewers owned or operated by the Co-Permittee or Secondary Permittee;
4. Control the contribution of pollutants from one portion of the municipal separate storm sewer system to another portion of the municipal separate storm sewer system;
5. Require compliance with conditions in ordinances, permits, contracts, or orders; and,
6. Carry out inspection, surveillance, and monitoring procedures necessary to determine compliance and non-compliance with permit conditions, including the prohibition on illicit discharges to the municipal separate storm sewer.

D. Stormwater Management Program for Port Districts:

1. Gathering, Maintaining, and Using Adequate Information. The SWMP shall include an ongoing program for gathering, maintaining, and using adequate information to conduct planning, priority setting, and program evaluation activities for Port-owned properties.

Minimum Performance Measures. The following information will be gathered and retained:

- a. Mapping of known municipal separate storm sewer outfalls, and maps depicting land use for property owned by the Port district, and all other properties served by municipal separate storm sewers owned or operated by the Port. The mapping shall be completed within 18 months of receiving coverage under this permit.
  - b. Mapping of tributary conveyances, and the associated drainage areas of *major municipal separate storm sewer outfalls*, will be completed within 2 years of the effective date of this permit.
  - c. Each Port shall make available to Ecology, upon request, GIS data layers depicting outfall locations, land use, tributary conveyances and associated drainage areas of major outfalls. GIS data shall be submitted in the format specified by Ecology at:  
<http://www.ecy.wa.gov/services/gis/data/standards.htm>.
  - d. No later than 18 months after receiving coverage under this permit, develop and implement a program to maintain operation and maintenance records for stormwater management facilities, indicating the date, what actions were taken and where wastes were disposed of. The information shall be available for inspection.
  - e. Upon Request, mapping information and operation and maintenance records shall be provided to the City or County in which the Port is located.
2. Source Control in existing Developed Areas. The SWMP shall include a program to address impacts caused by stormwater discharges from areas of existing development through the development and implementation of Stormwater Pollution Prevention Plans (SWPPPs). SWPPPs shall be prepared and implemented for all

Port-owned lands with potential pollutant-generating sources (see Appendix 3, for definition of pollutant-generating sources) that are not covered under the Industrial Stormwater General Permit, the Boatyard General Permit or an individual NPDES permit that covers stormwater discharges, and that could contribute pollutants to municipal separate storm sewers owned or operated by the Port.

#### Minimum Performance Measures

- a. SWPPPs must be developed for applicable properties within 18 months of receiving coverage under this permit. The SWPPP is a documented plan to implement measures to identify, prevent, and control the contamination of discharges of stormwater to surface or ground water.
- b. The SWPPP shall include a facility assessment including a site plan, identification of pollutant sources and description of the drainage system.
- c. The SWPPP shall include a description of the BMPs necessary for the site to eliminate or reduce stormwater contamination and, if necessary, regulate peak flow and volume of stormwater discharge. Implementation of non-structural BMPs shall begin immediately after the pollution prevention plan is developed. A schedule for implementation of structural BMPs shall be included in the SWPPP. Generic SWPPPs that can be applied at multiple sites may be used to comply with this requirement.
- d. The Port shall maintain a list of sites for which SWPPPs are required under this permit. At least 15% of the listed sites shall be inspected annually, and 80% of the total number of listed properties will be inspected during the term of the permit.
- e. The SWPPPs shall include policies and procedures to reduce pollutants associated with the application of pesticides, herbicides and fertilizer.
- f. The SWPPPs shall include measures to prevent, identify and respond to illicit discharges, including illicit connections, spills and improper disposal. Immediately upon becoming aware of a spill into the drainage system owned or operated by the Port, the Port shall notify the City or County it is located in, and notify Ecology.
- g. The SWPPPs shall include a component related to inspection and maintenance of stormwater treatment and flow control facilities, and catchbasins, that is consistent with the Port's Operation and Maintenance Program, as specified in 3., below. The SWPPP will address appropriate training for maintenance staff. Records of inspections and maintenance activities shall be maintained.

3. Operation and Maintenance Program. The SWMP shall include an operation and maintenance program for all stormwater treatment and flow control facilities, and catchbasins to ensure that BMPs continue to function properly.

#### Minimum Performance Measures:

- a. Each Port must prepare an operation and maintenance manual for all stormwater treatment and flow control BMPs that are owned or maintained by the Port. The deadline for preparing the maintenance manual is 18 months after receiving coverage under this permit. A copy of the manual shall be retained in the appropriate Port department. The operation and maintenance manual shall establish facility-specific maintenance standards that are as

1 protective, or more protective than those specified in Chapter 4 of Volume V of  
2 the 2001 Stormwater Management Manual for Western Washington.

3 The facility-specific maintenance standards are intended to be conditions for  
4 determining if maintenance actions are required as identified through  
5 inspection. They are not a measure of the facilities required condition at all  
6 times between inspections. Exceeding the maintenance standards between  
7 inspections and/or maintenance does not automatically constitute a violation of  
8 these standards. However, based upon inspection observations, the inspection  
9 and maintenance schedules shall be adjusted to minimize the length of time  
10 that a facility is in a condition that requires a maintenance action. These  
11 standards are violated when an inspection identifies a required maintenance  
12 action, and that action is not performed within 90 days for typical maintenance,  
13 within 6 months for re-vegetation, and within 1 year for maintenance that  
14 requires capital construction.

15 b. Each Port will manage maintenance activities to inspect all stormwater  
16 treatment and flow control BMPs annually and take appropriate maintenance  
17 action in accordance with the operation and maintenance manual. The annual  
18 inspection schedule may be changed to a lesser or greater frequency of  
19 inspection as appropriate to ensure compliance with maintenance standards  
20 based on maintenance records of double the length of time of the proposed  
21 inspection frequency.

22 c. The Port shall provide appropriate training for Port maintenance staff.

23 4. Education Program. The SWMP shall include an education program aimed at  
24 tenants and Port employees. The goal of the education program is to reduce or  
25 eliminate behaviors and practices that cause or contribute to adverse stormwater  
26 impacts.

27 Minimum Performance Measure:

28 a. No later than 18 months after receiving coverage under this permit, all tenant  
29 and Port employees whose job duties could negatively impact stormwater will  
30 receive educational materials.

31 5. Monitoring Program. The monitoring requirements for the Port of Seattle and Port  
32 of Tacoma are included in Special Condition S6.

33 E. Stormwater Management Program for King County as a Co-Permittee

34 King County as a Co-Permittee with the City of Seattle for the Densmore Metro  
35 Drainage Basin, as defined in the Memorandum of Agreement between the City and  
36 King County dated September 25, 1995, shall participate in the City of Seattle's  
37 Stormwater Management Program in accordance with the Joint Stormwater  
38 Management Program element of the Memorandum of Agreement. The Joint  
39 Stormwater Management Program shall at a minimum include the following:

- 40 1. Stormwater controls for areas of existing development consistent with S7.C.6.  
41 2. A source control program consistent with S7.C.7.  
42 3. An illicit discharge reduction program consistent with S7.C.8.  
43 4. An operation and maintenance program consistent with S7.C.9.

1           5. A public education program consistent with S7.C.10.

2           F. Stormwater Management Program for Secondary Permittees

3           All other Secondary Permittees shall develop and implement the following Stormwater  
4           Management Program. The term "all other Secondary Permittees" means drainage,  
5           diking, flood control, or diking and drainage districts, and any other owners or  
6           operators of municipal separate storm sewers located within the municipalities that are  
7           listed as Permittees in special condition S1.B.

8           The SWMP shall be designed to reduce the discharge of pollutants from regulated  
9           small MS4s to the maximum extent practicable and protect water quality. A SWMP is  
10          a set of actions and activities comprising the components listed in S8.F.1 through  
11          S8.F.6, below. Unless an alternate deadline is provided below, all components of the  
12          SWMP shall be fully developed and implemented within 5 years of receiving coverage  
13          under this permit.

14          1. Public Education and Outreach

15          Secondary Permittees must develop and implement a public education and outreach  
16          program. The program shall distribute educational materials or conduct equivalent  
17          outreach activities to educate the public, businesses and other entities in the area  
18          served by the Secondary Permittees MS4.

19          The minimum performance measures are:

- 20           a. Each Secondary Permittee shall identify at least one target audience served by  
21           the Secondary Permittees MS4 for stormwater education and will provide  
22           appropriate information to that audience about proper stormwater management  
23           to prevent water quality impacts.
- 24           b. The target audience(s) must be identified within one year from the date of permit  
25           coverage; an outreach strategy designed to reach 100% of the identified target  
26           audience must be developed and implemented within four years from the date of  
27           permit coverage. This requirement may be met by participating in the education  
28           program of the permitted jurisdiction that the secondary permittee is located  
29           within.

30          2. Public Involvement

31          At a minimum, Secondary Permittees must comply with applicable State, tribal and  
32          local public notice requirements when implementing a public involvement and  
33          participation program. The SWMP shall include ongoing opportunities for public  
34          involvement and participation through advisory panels, public hearings, watershed  
35          committees, participation in developing rate-structures, stewardship programs,  
36          environmental activities, volunteer opportunities, or other similar activities.

37          3. Illicit Discharge Detection and Elimination

38          The SWMP shall include measures to prevent, identify and respond to illicit  
39          discharges, including illicit connections, spills, and improper disposals, which shall  
40          include appropriate inspections and reports, and appropriate training and procedures  
41          to be used by field staff to recognize, report, and respond to, illicit discharges.

1 The minimum performance measures are:

- 2 a. From the date of permit coverage, comply with all relevant ordinances, rules, and  
3 regulations of the local jurisdiction(s) in which the Secondary Permittee is located  
4 that govern discharges into the local jurisdictions municipal separate storm sewer  
5 system.
- 6 b. Develop and enforce appropriate policies prohibiting illicit discharges and illegal  
7 dumping. Identify possible enforcement mechanisms within one year from the  
8 date of permit coverage; and, within eighteen months from the date of permit  
9 coverage, develop and implement an enforcement plan using these mechanisms  
10 to ensure compliance with illicit discharge policies adopted by the Secondary  
11 Permittee.
- 12 c. Develop a map of the municipal separate storm sewer system owned or operated  
13 by the Secondary Permittee within 2 years from the date of permit coverage.  
14 The map shall include all known storm drain outfalls to waters of the state and  
15 the name of the receiving water body or discharge points into adjacent MS4s.  
16 The map shall also include all known tributary conveyances, and their associated  
17 drainage areas, for all areas served by the MS4 owned or operated by the  
18 Secondary Permittee.  
19 The storm sewer map shall be provided to the City or County in which the  
20 Secondary Permittee is located, upon the request of those entities. In  
21 accordance with S7.C.2, Secondary Permittees may request mapping  
22 information from other entities covered under this permit.
- 23 d. By the end of the permit term, develop and implement a spill response plan that  
24 includes coordination with a qualified spill responder.
- 25 e. Provide staff training or coordinate with existing training efforts to educate  
26 relevant staff on proper best management practices for identifying and preventing  
27 spills and illicit discharges. All relevant staff must be trained by the end of the  
28 permit term.
- 29 f. Identify areas of industrial activity served by the Secondary Permittee's MS4 that  
30 require coverage under the Industrial General Permit, determine whether  
31 coverage has been obtained, and inform the Department if coverage has not be  
32 obtained.

#### 33 4. Construction Site Stormwater Runoff Control

34 The SWMP shall include a program to reduce pollutants in any stormwater runoff to  
35 the MS4 from construction activities that meet the thresholds in Appendix 1 of this  
36 permit.

37 The minimum performance measures are:

- 38 a. From the date of permit coverage, comply with all relevant ordinances, rules, and  
39 regulations of the local jurisdiction(s) in which the secondary permittee is located  
40 that govern construction phase stormwater pollution prevention measures.
- 41 b. From the date of permit coverage, seek coverage under the General NPDES  
42 Permit for Stormwater Discharges Associated with Construction Activities, when  
43 applicable.

- 1 c. Provide training or coordinate with existing training efforts to educate relevant  
2 staff in erosion and sediment control BMPs and requirements, or hire trained  
3 contractors to perform the work.

4 5. Post-Construction Stormwater Management for New Development and  
5 Redevelopment

6 The SWMP shall include a program to address post-construction stormwater runoff  
7 from new development and redevelopment projects that meet the thresholds in  
8 Appendix 1 of this permit. The program must ensure that controls are in place that  
9 would prevent or minimize water quality impacts.

10 The minimum performance measures are:

- 11 a. From the date of permit coverage, comply with all relevant ordinances, rules and  
12 regulations of the local jurisdiction(s) in which the secondary permittee is located  
13 that govern post-construction stormwater pollution prevention measures,  
14 including proper operation and maintenance of the MS4.
- 15 b. Provide for the post-construction stormwater controls included in Appendix 1 to  
16 be included on all new construction and other land-disturbing projects and ensure  
17 that qualified staff or contractors design post-construction stormwater controls as  
18 necessary to protect water quality on all projects.

19 6. Pollution Prevention and Good Housekeeping

20 All permittees must develop and implement an operation and maintenance program  
21 (O&M Plan) that includes a training component and has the ultimate goal of preventing  
22 or reducing pollutant runoff from municipal operations into MS4s. Within three years  
23 from the date of permit coverage, each Secondary Permittee shall develop a municipal  
24 O&M Plan. The O&M plan shall be fully implemented no later than five years from the  
25 date of permit coverage.

26 The minimum performance measures are:

- 27 a. The O&M Plan shall include appropriate pollution prevention and good  
28 housekeeping procedures for the following activities and/or types of facilities  
29 carried out, or under the functional control of the of the Secondary Permittee:
- 30 • Stormwater collection and conveyance system maintenance
  - 31 • Drainage/ditch system maintenance
  - 32 • Structural stormwater controls
  - 33 • Roads, highways, and parking lots
  - 34 • Vehicle fleets (storage, washing, and maintenance)
  - 35 • Equipment storage and maintenance areas
  - 36 • Material storage areas
  - 37 • Parks and open space
  - 38 • Other facilities that that would reasonably be expected to discharge  
39 contaminated runoff
- 40 b. The O&M plan shall include pollution prevention/good housekeeping practices at  
41 all park areas and other open spaces maintained by the Secondary Permittee.  
42 The O&M Plan must address, but is not limited to:
- 43 • Application of fertilizer, pesticides, and herbicides

- Sediment and erosion control
  - Landscape maintenance and vegetation disposal
  - Trash management
  - Building exterior cleaning and maintenance
- c. The O&M Plan shall include provisions for the regular inspection and maintenance of post-construction structural BMPs. The O&M Plan shall establish facility-specific maintenance standards that are as protective or more protective than those specified in Chapter 4 of Volume V of the 2005 Stormwater Management Manual for Western Washington.
- The facility-specific maintenance standards are intended to be conditions for determining if maintenance actions are required as identified through inspection. They are not a measure of the facility's required condition at all times between inspections. Exceeding the maintenance standards between inspections and/or maintenance does not automatically constitute a violation of these standards. However, based upon inspection observations, the inspection and maintenance schedules shall be adjusted to minimize the length of time that a facility is in a condition that requires a maintenance action. These standards are violated when an inspection identifies a required maintenance action, and that action is not performed within 90 days for typical maintenance, within 6 months for re-vegetation, and within 1 year for maintenance that requires capital construction of less than \$5,000.
- d. Secondary Permittees shall annually inspect all post construction stormwater BMPs. The annual inspections program shall begin no later than three years from the date of permit coverage. The annual inspection schedule may be changed to a lesser or greater frequency of inspection as appropriate to ensure compliance with maintenance standards based on maintenance records of double the length of time of the proposed inspection frequency.
- e. Secondary Permittees shall properly maintain stormwater collection and conveyance systems, including but not limited to: regular inspections, cleaning, proper disposal of waste removed from the system (per Appendix 7), and record keeping.
- f. From the effective date of permit coverage, Secondary Permittees shall identify, and submit a Notice of Intent for permit coverage for all facilities operated by the Secondary Permittee that are required to be covered under the General NPDES Permit for Stormwater Discharges Associated with Industrial Activities.
- g. Secondary Permittees shall provide appropriate training for employees of the Secondary Permittee whose construction, operations, or maintenance job functions may impact stormwater quality. Training shall address the importance of protecting water quality, the requirements of this permit, operation and maintenance requirements, inspection procedures, ways to perform their job activities to prevent or minimize impacts to water quality, and procedures for reporting water quality concerns, including potential illicit discharges.



## S9. REPORTING REQUIREMENTS

- A. Each Permittee, co-Permittee and secondary Permittee shall submit, no later than March 31 of each year beginning in the year 2007, an annual report. The reporting period for each annual report shall be the previous calendar year.
- B. The annual report shall include the following information:
  1. Status of compliance with the conditions of this permit, including the status of implementing the components of the stormwater management program, and the implementation schedule. If permit deadlines are not met, Permittees, co-Permittees and secondary Permittees shall report the reasons why the requirement was not met and how the requirements will be met in the future, including projected implementation dates. A comparison of program implementation results to performance standards established in this permit shall be included for each program area.
  2. Notification of any recent or proposed annexations or incorporations resulting in an increase or decrease in permit coverage area, and implications for the stormwater management program
  3. Expenditures for the reporting period, with a breakdown for the components of the stormwater management program.

[\[See previous comments. This is extremely difficult to do, and the numbers are especially questionable from divisions/departments where stormwater is not their main type of work.\]](#)

4. A summary describing compliance activities, including the nature and number of official enforcement actions, inspections, and types of public education activities; and

5. Identification of known water quality improvements or degradation.

[6. Quantitative and qualitative evaluation of the effectiveness of the municipal stormwater permitting and program efforts in protecting and restoring water quality and beneficial uses:](#)

- [a. Is implementation of the Stormwater Management Program preventing impacts from the effects of new development by controlling construction and post-construction runoff?](#)
- [b. Are the Permittees preventing impacts and seeing improvements to beneficial uses by implementing a comprehensive stormwater management program?](#)

[7. Refinements of the Stormwater Management Program](#)

### C. Report Format

Each Permittee, co-Permittee or secondary Permittee shall use the attached reporting forms, in Appendix 8, which is by this reference as if set forth fully herein. Each Permittee shall complete the applicable form in its entirety. Two copies of the annual report shall be submitted to Ecology. In addition, an electronic copy of the report, in pdf format, shall be submitted to Ecology

1  
2  
3

[The report format was not available for review.]

1 GENERAL CONDITIONS

3 **G1. DISCHARGE VIOLATIONS**

4 All discharges and activities authorized by this permit shall be consistent with the terms  
5 and conditions of this permit.

6 **G2. PROPER OPERATION AND MAINTENANCE**

7 The Permittee shall at all times properly operate and maintain all facilities and systems of  
8 collection, treatment, and control (and related appurtenances) which are installed or used  
9 by the Permittee for pollution control to achieve compliance with the terms and conditions  
10 of this permit.

11 **G3. NOTIFICATION OF SPILL**

12 If a Permittee has knowledge of a spill into a municipal storm sewer which could constitute  
13 a threat to human health, welfare, or the environment, the Permittee shall notify the  
14 Ecology regional office and other appropriate spill response authorities immediately but in  
15 no case later than within 24 hours of obtaining that knowledge. Spills which might cause  
16 bacterial contamination of shellfish, such as might result from broken sewer lines, shall be  
17 reported immediately to the Department of Ecology and the Department of Health,  
18 Shellfish Program. The Department of Ecology's Regional Office 24-hr. number is 425  
19 649-7000 for NWRO and 360 407-6300 for SWRO and the Department of Health's  
20 Shellfish 24-hr. number is 360-236-3330.

21 **G4. BYPASS PROHIBITED**

22 The intentional *bypass* of stormwater from all or any portion of a stormwater treatment  
23 BMP whenever the design capacity of the treatment BMP is not exceeded, is prohibited  
24 unless the following conditions are met:

- 25 A. Bypass is: (1) unavoidable to prevent loss of life, personal injury, or severe property  
26 damage; or (2) necessary to perform construction or maintenance-related activities  
27 essential to meet the requirements of the *Clean Water Act (CWA)*; and
- 28 B. There are no feasible alternatives to bypass, such as the use of auxiliary treatment  
29 facilities, retention of untreated stormwater, or maintenance during normal dry periods.
- 30 "Severe property damage" means substantial physical damage to property, damage to  
31 the treatment facilities which would cause them to become inoperable, or substantial  
32 and permanent loss of natural resources which can reasonably be expected to occur in  
33 the absence of a bypass. Severe property damage does not mean economic loss.

34 [\[Add to definitions.\]](#)

35 **G5. RIGHT OF ENTRY**

36 The Permittee shall allow an authorized representative of Ecology, upon the presentation  
37 of credentials and such other documents as may be required by law at reasonable times:

- 38 A. To enter upon the Permittee's premises where a discharge is located or where any  
39 records must be kept under the terms and conditions of this permit;
- 40 B. To have access to, and copy at reasonable cost and at reasonable times, any records  
41 that must be kept under the terms of the permit;

- 1 C. To inspect at reasonable times any monitoring equipment or method of monitoring  
2 required in the permit;  
3 D. To inspect at reasonable times any collection, treatment, pollution management, or  
4 discharge facilities; and  
5 E. To sample at reasonable times any discharge of pollutants.

6 **G6. DUTY TO MITIGATE**

7 The Permittee shall take all reasonable steps to minimize or prevent any discharge in  
8 violation of this permit which has a reasonable likelihood of adversely affecting human  
9 health or the environment.

10 **G7. PROPERTY RIGHTS**

11 This permit does not convey any property rights of any sort, or any exclusive privilege.

12 **G8. COMPLIANCE WITH OTHER LAWS AND STATUTES**

13 Nothing in the permit shall be construed as excusing the Permittee from compliance with  
14 any other applicable federal, state, or local statutes, ordinances, or regulations.

15 **G9. MONITORING**

16 A. Representative Sampling:

17 Samples and measurements taken to meet the requirements of this permit shall be  
18 representative of the volume and nature of the monitored discharge, including  
19 representative sampling of any unusual discharge or discharge condition, including  
20 bypasses, upsets, and maintenance-related conditions affecting effluent quality.

21 B. Records Retention:

22 The Permittee shall retain records of all monitoring information, including all calibration  
23 and maintenance records and all original recordings for continuous monitoring  
24 instrumentation, copies of all reports required by this permit, and records of all data  
25 used to complete the application for this permit, for a period of at least five years. This  
26 period of retention shall be extended during the course of any unresolved litigation  
27 regarding the discharge of pollutants by the Permittee or when requested by the  
28 *Director*. On request, monitoring data and analysis shall be provided to Ecology.

29 **[A 5 year retention requirement on monitoring data (the data not calibration**  
30 **records) is not long enough when we know that we need at least a 20 year**  
31 **discontinuous flow record to start to see trending. However, this should not be**  
32 **a permit item beyond the 5 years, but should be addressed, perhaps as a**  
33 **recommendation. Again, this speaks to getting us all to put money in a pot for**  
34 **certain monitoring functions, and this is one of them.]**

35  
36 C. Recording of Results:

37 For each measurement or sample taken, the Permittee shall record the following  
38 information: (1) the date, exact place and time of sampling; (2) the individual who  
39 performed the sampling or measurement; (3) the dates the analyses were performed;

(4) who performed the analyses; (5) the analytical techniques or methods used; and  
(6) the results of all analyses.

**D. Test Procedures:**

All sampling and analytical methods used to meet the monitoring requirements specified in the approved stormwater management program shall conform to the Guidelines Establishing Test Procedures for the Analysis of Pollutants contained in 40 CFR Part 136, unless otherwise specified in this permit or approved in writing by Ecology.

**E. Flow Measurement:**

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year. Calibration records should be maintained for a minimum of three years.

**F. Lab Accreditation:**

All monitoring data, except for flow, temperature, conductivity, pH, total residual chlorine, and other exceptions approved by Ecology, shall be prepared by a laboratory registered or accredited under the provisions of, Accreditation of Environmental Laboratories, Chapter 173-50 WAC. Soils and hazardous waste data are exempted from this requirement pending accreditation of laboratories for analysis of these media by Ecology.

**G. Additional Monitoring:**

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

**G10. REMOVED SUBSTANCES**

With the exception of decant from street waste vehicles, the Permittee shall not allow collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to be resuspended or reintroduced to the storm sewer system or to waters of the state. Decant from street waste vehicles resulting from cleaning stormwater facilities may be reintroduced only when other practical means are not available and only in accordance with the Street Waste Disposal Guidelines in Appendix 7, which is by this reference as if set forth fully herein.

**G11. SEVERABILITY**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

## **G12. REVOCATION OF COVERAGE**

The director may terminate coverage under this General Permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC. Cases where coverage may be terminated include, but are not limited to the following:

- A. Violation of any term or condition of this general permit;
- B. Obtaining coverage under this general permit by misrepresentation or failure to disclose fully all relevant facts;
- C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- D. A determination that the permitted activity endangers human health or the environment, or contributes significantly to water quality standards violations;
- E. Failure or refusal of the Permittee to allow entry as required in rcw 90.48.090;
- F. Nonpayment of permit fees assessed pursuant to rcw 90.48.465;

Revocation of coverage under this general permit may be initiated by Ecology or requested by any interested person.

## **G13. TRANSFER OF COVERAGE**

The director may require any discharger authorized by this general permit to apply for and obtain an individual permit in accordance with Chapter 43.21B RCW and Chapter 173-226 WAC.

## **G14. GENERAL PERMIT MODIFICATION AND REVOCATION**

This general permit may be modified, revoked and reissued, or terminated in accordance with the provisions of WAC 173-226-230. Grounds for modification, revocation and reissuance, or termination include, but are not limited to the following:

- A. A change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this general permit;
- B. Effluent limitation guidelines or standards are promulgated pursuant to the CWA or chapter 90.48RCW, for the category of dischargers covered under this general permit;
- C. A water quality management plan containing requirements applicable to the category of dischargers covered under this general permit is approved; or
- D. Information is obtained which indicates that cumulative effects on the environment from dischargers covered under this general permit are unacceptable.

## **G15. REPORTING A CAUSE FOR MODIFICATION OR REVOCATION**

A Permittee who knows or has reason to believe that any activity has occurred or will occur which would constitute cause for modification or revocation and reissuance under Condition G12, G14, or 40 CFR 122.62 must report such plans, or such information, to Ecology so that a decision can be made on whether action to modify, or revoke and reissue this permit will be required. Ecology may then require submission of a new or amended application. Submission of such application does not relieve the Permittee of the duty to comply with this permit until it is modified or reissued.

1 **G16. APPEALS**

2 A. The terms and conditions of this general permit, as they apply to the appropriate  
3 class of dischargers, are subject to appeal within thirty days of issuance of this  
4 general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226  
5 WAC.

6 B. The terms and conditions of this general permit, as they apply to an individual  
7 discharger, are appealable in accordance with chapter 43.21b rcw within thirty  
8 days of the effective date of coverage of that discharger. Consideration of an  
9 appeal of general permit coverage of an individual discharger is limited to the  
10 general permit's applicability or nonapplicability to that individual discharger.

11 C. The appeal of general permit coverage of an individual discharger does not affect  
12 any other dischargers covered under this general permit. If the terms and  
13 conditions of this general permit are found to be inapplicable to any individual  
14 discharger(s), the matter shall be remanded to ecology for consideration of  
15 issuance of an individual permit or permits.

16 D. Modifications of this permit are appealable in accordance with chapter 43.21B  
17 RCW and chapter 173-226 WAC.

18 **G17. PENALTIES**

19 40 CFR 122.41(a)(2) and (3), 40 CFR 122.41(j)(5), and 40 CFR 122.41(k)(2) are  
20 hereby incorporated into this permit by reference.

21 **G18. DUTY TO REAPPLY**

22 The Permittee must apply for permit renewal at least 180 days prior to the specified  
23 expiration date of this permit. An expired permit continues in force and effect until a new  
24 permit is issued or until Ecology cancels the permit. Only Permittees who have reapplied  
25 for coverage under this permit are covered under the continued permit.

26 **G19. CERTIFICATION AND SIGNATURE**

27 All applications, reports, or information submitted to Ecology shall be signed and  
28 certified.

29 A. All permit applications shall be signed by either a principal executive officer or  
30 ranking elected official.

31 B. All reports required by this permit and other information requested by Ecology shall  
32 be signed by a person described above or by a duly authorized representative of that  
33 person. A person is a duly authorized representative only if:

34 1. The authorization is made in writing by a person described above and submitted  
35 to Ecology, and

36 2. The authorization specifies either an individual or a position having responsibility  
37 for the overall development and implementation of the stormwater management  
38 program. (A duly authorized representative may thus be either a named  
39 individual or any individual occupying a named position.)

40 C. Changes to authorization. If an authorization under General Condition G19.B.2 is no  
41 longer accurate because a different individual or position has responsibility for the  
42 overall development and implementation of the stormwater management program, a

1 new authorization satisfying the requirements of General Condition G19.B.2 must be  
2 submitted to Ecology prior to or together with any reports, information, or applications  
3 to be signed by an authorized representative.

4 D. Certification. Any person signing a document under this permit shall make the  
5 following certification:

6 "I certify under penalty of law, that this document and all attachments were prepared  
7 under my direction or supervision in accordance with a system designed to assure  
8 that qualified personnel properly gathered and evaluated the information submitted.  
9 Based on my inquiry of the person or persons who manage the system or those  
10 persons directly responsible for gathering information, the information submitted is,  
11 to the best of my knowledge and belief, true, accurate, and complete. I am aware  
12 that there are significant penalties for submitting false information, including the  
13 possibility of fine and imprisonment for willful violations."

#### 14 **G20. RECORDS RETENTION**

15 Each Permittee is required to keep all records related to this permit for at least five  
16 years.



## 1   **DEFINITIONS AND ACRONYMS**

2   "Best Management Practices" ("BMPs") means the schedules of activities, prohibitions of  
3   practices, maintenance procedures, and structural and/or managerial practices that when used  
4   singly or in combination, prevent or reduce the release of pollutants and other adverse impacts  
5   to waters of Washington State.

### 6   [Define beneficial uses.]

7   Bypass means the diversion of stormwater from any portion of a stormwater treatment facility.

8   "CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act  
9   or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub.  
10   L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.

11   "Component" or "Program Component" means the elements of the stormwater management  
12   program listed in Special Condition S7 or S8.

13   "Co-Permittee" means an owner or operator of a municipal separate storm sewer (other than an  
14   incorporated city) located within a large or medium municipality, that has co-applied for a permit  
15   with that municipality, and that is only responsible for permit conditions relating to the discharge  
16   for which it is operator.

17   "Director" means the Director of the Washington State Department of Ecology, or an authorized  
18   representative.

19   "Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from  
20   Municipal Separate Storm Sewers of the Permittees.

### 21   [Define entity.]

22   ~~"Existing Stormwater Discharge" means a discharge from a municipal separate storm sewer~~  
23   ~~constructed or vested before the effective date of this permit, at the point where it discharges to~~  
24   ~~receiving waters. An existing stormwater discharge serves an area of existing development and~~  
25   ~~does not include new stormwater sources or new stormwater outfalls~~

26   "40 CFR" means Title 40 of the Code of Federal Regulations, which is the codification of the  
27   general and permanent rules published in the Federal Register by the executive departments  
28   and agencies of the federal government.

29   "General Permit" means a permit which covers multiple dischargers of a point source category  
30   within a designated geographical area, in lieu of individual permits being issued to each  
31   discharger.

32   "Heavy equipment maintenance or storage yard" means an uncovered area where any heavy  
33   equipment, such as mowing equipment, excavators, dump trucks, backhoes, or bulldozers are  
34   washed or regularly maintained, or where at least five pieces of heavy equipment are stored

35   "Illicit connection" means any man-made conveyance that is connected to a municipal separate  
36   storm sewer without a permit, excluding roof drains and other similar type connections.

1 Examples include sanitary sewer connections, floor drains, channels, pipelines, conduits, inlets,  
2 or outlets that are connected directly to the municipal separate storm sewer system.

3 "Illicit discharge" means any discharge to a municipal separate storm sewer that is not  
4 composed entirely of storm water except discharges pursuant to a NPDES permit (other than  
5 the NPDES permit for discharges from the municipal separate storm sewer) and discharges  
6 resulting from fire fighting activities.

7 "Integrated Pest Management" means a coordinated decision-making and action process that  
8 uses the most appropriate pest control methods and strategy in an environmentally and  
9 economically sound manner to meet agency programmatic pest management objectives. The  
10 elements of integrated pest management include:

11 (a) Preventing pest problems;

12 (b) Monitoring for the presence of pests and pest damage;

13 (c) Establishing the density of the pest population, that may be set at zero, that can be tolerated  
14 or correlated with a damage level sufficient to warrant treatment of the problem based on health,  
15 public safety, economic, or aesthetic thresholds;

16 (d) Treating pest problems to reduce populations below those levels established by damage  
17 thresholds using strategies that may include biological, cultural, mechanical, and chemical  
18 control methods and that must consider human health, ecological impact, feasibility, and cost-  
19 effectiveness; and

20 (e) Evaluating the effects and efficacy of pest treatments.

21 "Pest" means, but is not limited to, any insect, rodent, nematode, snail, slug, weed, and any  
22 form of plant or animal life or virus, except virus, bacteria, or other microorganisms on or in a  
23 living person or other animal or in or on processed food or beverages or pharmaceuticals, which  
24 is normally considered to be a pest, or which the director of the department of agriculture may  
25 declare to be a pest.

26 "Large Municipal Separate Storm Sewer System (Large MS4)" means all Municipal Separate  
27 Storm Sewers located in an incorporated place with a population of 250,000 or more, a County  
28 with unincorporated urbanized areas with a population of 250,000 or more according to the  
29 1990 decennial census by the Bureau of Census.

30 "Low Impact Development" (LID) means a stormwater management and land development  
31 strategy applied at the parcel and subdivision scale that emphasizes conservation and use of  
32 on-site natural features integrated with engineered, small-scale hydrologic controls to more  
33 closely mimic pre-development hydrologic functions.

34 "Maintenance" means those actions and activities that are performed to maintain the original  
35 line and grade, hydraulic capacity or original purpose of the facility.

36 "Major Municipal Separate Storm Sewer Outfall" means a municipal separate storm sewer  
37 outfall from a single pipe with an inside diameter of 36 inches or more, or its equivalent  
38 (discharge from a single conveyance other than circular pipe which is associated with a  
39 drainage area of more than 50 acres); or for municipal separate storm sewers that receive  
40 stormwater from lands zoned for industrial activity (based on comprehensive zoning plans or the

equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent (discharge from other than a circular pipe associated with a drainage area of 12 acres or more).

"Material Storage Facilities" means an uncovered area where bulk materials (liquid, solid, granular, etc.) are stored in piles, barrels, tanks, bins, crates, or other means.

"Medium Municipal Separate Storm Sewer System (Medium MS4)" means all Municipal Separate Storm Sewers (MS3s) located in an incorporated place with a population of more than 100,000 but less than 250,000, or a county with unincorporated urbanized areas of more than 100,000 but less than 250,000 according to the 1990 decennial census by the Bureau of Census.

[Add a definition for Municipal Field Staff. Interpreted broadly, it appears that any City worker out in the field who can observe an illicit discharge needs to be trained and become part of the source control efforts. At its most inclusive, this could mean garbage truck drivers. If the training requirements were extended to garbage truck drivers, it may distract them from performing their normal duties.]

"Municipal Separate Storm Sewer (MS3)" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains): (i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of wastes, storm water, or other wastes, including special districts under State Law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; and (iv) which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

"National Pollutant Discharge Elimination System" (NPDES) means the national program for issuing, modifying, revoking, and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the state from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

~~"New Stormwater Discharge" includes new stormwater sources and new stormwater outfalls.~~

~~"New Stormwater Outfall" means a municipal separate storm sewer, at the point where it discharges to receiving waters, that is vested after the effective date of this permit, and is constructed at a location where a municipal separate stormwater discharge did not exist at the effective date of the permit. A new stormwater outfall may consist of new stormwater sources, existing stormwater sources or a combination of new and existing stormwater sources. A new stormwater outfall does not include a replacement of an existing outfall, provided that the replacement does not increase the volume, flow rate, or pollutant load of the discharge, and discharges to the same water body at approximately the same location.~~

~~"New Stormwater Source" means any New Development and Redevelopment, as defined in Appendix 1, that is vested after the effective date of this permit, increases the volume, flow rate,~~

~~or pollutant load of the stormwater runoff from the site, and discharges to a municipal separate storm sewer owned or operated by the Permittee or co-Permittee.~~

"Notice of Intent" (NOI) means the application for, or a request for coverage under this General Permit pursuant to WAC 173-226-200.

"Notice of Intent for Construction Activity," and "Notice of Intent for Industrial Activity" mean the application forms for coverage under the Construction Stormwater General Permit and the Industrial Stormwater General Permit.

"Outfall" means point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the State and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the State and are used to convey waters of the State.

"Physically Interconnected" means that one MS4 is connected to a second MS4 in such a way that it allows for direct discharges to the second system. For example, the roads with drainage systems and municipal streets of one entity are physically connected directly to a MS4 belonging to another entity.

"Process Wastewater" means any water which, during manufacture or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by product, or waste product.

"Qualified Personnel" means someone who has had professional training in the aspects of stormwater management they are responsible for.

"Runoff" see Stormwater.

"Shared Waterbodies" means waterbodies, including downstream segments, lakes and estuaries, that receive discharges from more than one Permittee.

~~"Site-specific Information" includes but is not limited to: information in water quality management plans such as watershed or stormwater basin plans, TMDLs, groundwater management plans, and lake management plans; information about hydrology, soils, or the sensitivity of the receiving waters that is obtained through professional field observations or monitoring; and information about likely pollutant sources.~~

"Stormwater" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

"Stormwater Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying stormwater, which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant, and is required to have an NPDES permit in accordance with 40 CFR 122.26.

[Define Stormwater Facilities.]

"Stormwater Management Manual for Western Washington" means the 5-volume technical manual (Publication Nos. 05-10-029 through 05-10-033) published by Ecology in February 2005.

1 “Vesting” means the date, established by local government, that is used to determine which  
2 development regulations apply to the review of a complete development permit application or  
3 approved development permit.

4 “Waters of the State” includes those waters as defined as "waters of the United States" in 40  
5 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the  
6 state" as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland  
7 waters, underground waters, salt waters and all other surface waters and water courses within  
8 the jurisdiction of the State of Washington.

9 “Water Quality Standards” means Surface Water Quality Standards, Chapter 173-201A WAC,  
10 Ground Water Quality Standards, Chapter 173-200 WAC, and Sediment Management  
11 Standards, Chapter 173-204 WAC.

12  
13 **Comments on the appendices:**

14 **Appendix 1 – Minimal Technical Requirements for New Development and Redevelopment**

15 **1.**

16 **Tacoma Water recommends the following addition/revision to Appendix 1.**

17 **Exemptions - Low Intensity Access Roads and Parking Areas:**

18 **Maintenance access roads and low intensity parking shall be considered exempt from**  
19 **Minimum Requirement #6 – Runoff Treatment. Due to limited vehicular access, the**  
20 **paved and/or gravel surfaces created for certain sites do not constitute Pollution**  
21 **Generating Impervious Surfaces. All other minimum requirements shall apply.**

22 **Low intensity shall be defined as access by a vehicle once a week or infrequently on a**  
23 **monthly basis. Some examples of low intensity paved/gravel areas are: power**  
24 **substations, pump stations, reservoirs, pipeline access roads.**

25 **Note: Metal roofs of these facilities could still be considered pollution generating**  
26 **surfaces.**

27 **Reasoning:**

28 **It is unreasonable and financial irresponsible to expect treatment BMPs for impervious**  
29 **surface that see minimal to no traffic. Unfortunately the Manual only provides**  
30 **designations for “High-use” sites, which is above and beyond Basic Treatment. The**  
31 **Manual’s expectation is if a driving surface is placed that is greater than the determined**  
32 **threshold, it shall be treated.**

33 **This is erroneous because in some cases paved or gravel sites, do not generate**  
34 **pollutants of any significance. For example, a pump station may have up to 5000 square**  
35 **feet of impervious paving/gravel in an area, but only have a weekly visit by one vehicle to**  
36 **inspect its operation. We believe the required training for City staff to recognize and deal**  
37 **with spills, along with the spill kits provided with vehicles is a more than adequate BMP**  
38 **for these municipally owned and maintained facilities. The potential for contaminant**

1 release is a minimal risk compared to the associated cost for treatment and maintenance  
2 of the treatment device for these facilities.

3 2.

4 2.4.1 – requires construction SWPPP for 2000 feet of new impervious surface or 7000 feet  
5 of disturbed land.

6 Comment: New state standard effective in November is to apply SWPPP requirements  
7 for developments of > 1 acre. The requirement for Permittees is excessive and should be  
8 scaled back to reflect areas from previous permits.

9  
10 Appendix 4 – Water line flushing and discharges from potable water sources

11 Tacoma Water recommends the following :

12 Comment: Ecology has not defined what they mean by hyperchlorinated, nor have they  
13 defined what the potential problem could be regarding declorinated water discharge if it  
14 has been hyperchlorinated. Ecology risks coming into conflict with drinking water  
15 standards and requirements placed upon water purveyors and should provide additional  
16 information regarding this topic prior to adding the requirement.

17 Tacoma Water will be providing an informational memorandum to Environmental  
18 Services to include with the final NPDES permit documents, describing our water supply  
19 system and processes. To address this Appendix, we will particularly discuss  
20 systematic flushing and our reservoir cleaning program.]